

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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## GET-BUSY NOW.

IN periods of great activity almost everybody can get business. It does not then require any great initiative or great hustling qualities for a manufacturer or business concern of any kind to secure a full share of trade.

In times of dullness or inactivity the real force of a man's character or the initiative and pushing qualities of a business concern are put to the test. In periods of dullness there is always a vast amount of business done. For in this country, with 95,000,000 people moving to and fro carrying on the accustomed work of life, there is of necessity a very large volume of trade of every kind. The machinery of business may slow down, but it still keeps running. During this period of comparative inactivity, here and there people are complaining about not being able to do business. But this condition tests the qualities of a business house and gives it the opportunity of demonstrating the kind of stuff of which its people are made. It is in such a period as this that many a concern, by finding new ways of doing business or of opening up new avenues for lines which it has never pursued, has been able to keep in full operation and make as much money as in times of activity. This may not be true in every individual business, but it has proven true in many cases.

The present business situation furnishes a fine opportunity for those who want to demonstrate their ability to get trade. At such a time as this manufacturers who can do so ought to re-equip their plants with any new machinery needed; people who are in position to build should do whatever building work they have in mind; concerns that propose to hustle rather than sit down and repine ought to do their heaviest advertising, and thus by the vigor of their enterprise demonstrate their alertness. The psychological effect of doing things of this kind not only exerts a wide influence for the good of general trade, but it stimulates the broadest interest in concerns that are willing to stand out conspicuously in such campaigns.

In boom times any concern can get up energy enough to advertise largely. Any town or city caught by the spirit of the day can arouse enthusiasm among its people to spend money for advertising work. But the real live hustling concern or town that wants to make itself known throughout the business world now has an exceptional opportunity. The city that dares to do big advertising now, or the business concern that is far seeing enough to appreciate its importance, will make for itself a name known throughout business circles.

It is easy enough to talk about inability to get business, inability to find money for such expenditures, and one can very easily drop into harmony

with the pessimistic spirit of the times; but the pessimist is not of very much value to himself or his community. The man who can achieve things is the man who refuses to be depressed or downcast when everything is not running his way. It may be easier to swim with the current, but the man who breasts the current and works his way upstream has done a finer piece of work than the man who merely floats with the tide.

Let us stop waiting for something to turn up and turn up business.

## SOUTH'S GREATEST RAW MATERIAL

IN the inquiry blank sent by the MANUFACTURERS' RECORD to prospective building enterprises in the South, there is one line which asks as to the "character of product and daily output." Responding to this inquiry Carneal & Johnston, architects, of Richmond, who are preparing plans for a new building for the Virginia Polytechnic Institute at Blacksburg, say "students."

That is the finest and the highest grade of product reported to come out of any enterprise which the MANUFACTURERS' RECORD has ever announced—"students." How much that means—men trained in body and mind to utilize their God-given faculties for their own advancement and the betterment of the world. We boast, and rightly so, of the great material resources of the South, but infinitely more valuable than coal and iron and cotton are the people of the South, men and women, and boys and girls.

In proportion as mind is greater than matter, as soul is greater than body, and spiritual things greater than material things, is the value of the manhood and womanhood of the South greater than all of its vast material resources. The output by the schools and colleges of the South of "students" is worth to this section and to the world many times the output of its coal mines and its iron furnaces and its cotton mills. These material things are of trifling importance as compared with the higher things represented by "students." Great is the responsibility of the men and women in the schools and colleges who are training these boys and girls and young men and young women and fitting them to do their part in the world. Their work has never been adequately appreciated either financially or in public recognition of its pre-eminent importance in the welfare of the individual and of the country.

While we are striving to utilize the material resources of the South, to turn its coal and iron and timber and water powers into wealth-creating factors, it is even more important that the vast undeveloped, unutilized resources of the untrained and uneducated boys and girls of this section should be utilized by fitting them by education and by the training of work, and the education that fits them for the responsibilities of life, to become greater factors in the world's affairs than all the coal and iron and timber of this or any other section. While striving to improve the soil of the South, still greater efforts should be made to improve the souls and bodies of the undeveloped and unimproved men and women and boys and girls of the South.

We talk a great deal about bringing new population into the South, but the incoming of new people is not half so important as the development of the people we already have. A great influx of immigration would add mightily to the problems which the South already faces. That new people will come and that they should be, if of the right kind, heartily welcomed are of course self-evident truths; but while striving to achieve material development and to bring in outside people, let the South turn its

attention with more enthusiasm than ever before to the utilization of the limitless resources of raw material in the untrained, undeveloped, unutilized people already in the South. Probably we have not a larger share of unutilized and undeveloped people than other sections, but we have more than we should have. There are more idle boys and men hanging around country stores and depots, cigarette smoking and loafing, wasting time and body and soul, than we should have. Let the men who are giving so much thought and energy to bringing in new people turn some of their thought and attention to the betterment of the people around them, that those who are undeveloped and untrained may be developed and trained to do their work in the world.

Looked at from the purely material point of view, there are enough people in the South to do twice as much work in the aggregate as is now done there. There are enough people to meet every demand of the farm and the factory; but a very considerable proportion of them are living in idleness for a part, and many for all of their time; some of them are wasting life in drinking and gambling; some are simply drifting as the current goes, and others are viciously bad. There are very many in all of these classes that might be reached by the right kind of work, and who could probably be saved to themselves and to their country by an expenditure of even less energy than that which is put forth to bring other people into the South.

Would it not be well for every man who is asking the question what he can do to bring increased population into this section, to ask what is he doing to develop the population which is here? Some are being developed in the schools and colleges, but the "student" is not necessarily the one who is passing through a college or a university. Thousands of men who have been "students," in the best sense of the word, have never passed through college, but either of their own volition or by helpful words and right training have been taught by those about them the responsibility of study and work. Let us in the South make a new effort to develop the raw material in the people who are already here, with a full recognition of the fact that it is easier to develop these people to the good of the South than it is to bring in and develop an alien element whose thoughts and desires and manner of living to a very large extent would not be in harmony with the thought and the life of the South.

## CURE FOR AN UNCERTAIN STATE OF MIND IN THE COUNTRY.

A STATE of mind and not the state of nature is responsible for a feeling of uncertainty affecting the welfare of the people of this country. The state of mind was recognized by President Wilson in his first annual message to the Congress when he said:

It is of capital importance that the business men of this country should be relieved of all uncertainties of law with regard to their enterprises and investments and a clear path indicated which they can travel without anxiety. It is as important that they should be relieved of embarrassment and set free to prosper as that private monopoly should be destroyed. The ways of action should be thrown wide open.

The method of relief from uncertainty was clearly sketched by President Wilson in his inaugural address less than ten months ago. Proclaiming that the task of the American people was "a work of restoration," and itemizing certain things that ought to be altered, including the tariff, banking and currency, the industrial system, agricultural conditions

and handling of the natural resources, animate and inanimate, he said:

These are some of the things we ought to do, and not leave the others undone, the old-fashioned, never-to-be-neglected, fundamental safeguarding of property and of individual right. This is the high enterprise of the new day: To lift everything that concerns our life as a Nation to the light that shines from the hearthfire of every man's conscience and vision of the right. It is inconceivable that we should do this as partisans; it is inconceivable we should do it in ignorance of the facts as they are or in blind haste. We shall restore, not destroy. We shall deal with our economic system as it is and as it may be modified, not as it might be if we had a clean sheet of paper to write upon; and step by step we shall make it what it should be, in the spirit of those who question their own wisdom and seek counsel and knowledge, not shallow self-satisfaction or the excitement of excursions whither they cannot tell. Justice, and only justice, shall always be our motto.

"We shall restore, not destroy."

The feeling of uncertainty among substantial men is due to apprehension, lest, because of ignorance of facts as they are or in blind haste, the processes of attempted restoration shall end in destruction. Facts justify this apprehension.

Absolutely essential to the full development of all natural resources of the country are the railroads. For a score of years the railroads have been a special target for legislation, National and State, and agitation promising further legislation. It cannot be denied that practices of some railroads were against right and the welfare of the public, especially when such railroads came under the control of elements habituated to handling any industrial or transportation proposition with regard solely for their own immediate gain at the expense of the public, present and future. Such a policy called for correction, and the means for correction were at hand in established law. In this age of progressivism, however, established and well tested principles of law to be applied honestly and fearlessly to particular situations are not deemed sufficient. Coincidentally with waning respect for the ability of the courts, consequent upon a tendency on the part of the courts to assume quasi-legislative functions, there has rapidly developed on the part of officials of the law an inclination to become more and more strenuous in instituting prosecutions with the main purpose of impressing the electorate with the idea that they are doing something, judged by the outcome of much of the prosecution. Both these tendencies are complementary to the multiplication upon the statute books of special laws designed to meet particular cases, framed under the impulse of "popular" excitement misdirected for more than a decade by sensational self-seeking in politics and the "popular" delusion that progress can be assured only through radical experiments. Resort in all history for men seeking to present a plausible reason for their support by the mass has inevitably become a drive against aggregation of accomplishment, without discrimination between the good and the bad, and directed immediately against some particular form of power or wealth. It has been so as to the railroads. Consequently, the railroads as a whole cannot command the financial support which is absolutely required if they are to meet the increasing demands upon them. No one is anxious to invest his money in a project the expenses of which are likely to be progressively increased under the spur of public opinion that refuses to allow a proportionate increase in the means to meet the expenses.

Because of growing uncertainty on the part of legislators as to the meaning of their own legislation, the people of the country having interests that are affected by legislation naturally view with some degree of apprehension any new legislation undertaken, especially that dealing with fundamentals in national life. That is so as to currency and banking. Probably no intelligent citizen is opposed to a proper modification of our present banking and currency system. Probably every intelligent citizen would welcome such a modification made as speedily as possible with due regard for safety of the whole public. Uncertainty consequent upon pending currency legislation is not due to opposition to change in the currency system generally recognized as imperatively called for. It is born of fear that haste in legislation will prevent experience and reason from overcoming incompetency in making the change. The one important measure enacted by the extra session of the present Congress is a record of incompetency in ignorance of facts and in blind

haste. With results harassing Government and people alike, with scant regard in them for the old-fashioned, never-to-be-neglected fundamental safeguarding of property and of individual right, it would be strange if those citizens of the country who are in a position to know how such results can affect the country disastrously refuse to become enthusiastic at the prospect of a currency measure originating in like manner. To be sure, experience of the past nine months has taught some national lawmakers to question their own wisdom and to seek counsel and knowledge in their efforts to frame an adequate banking law. Will that questioning and seeking be allowed to prevail in the final outcome, or will individuals of shallow self-satisfaction be permitted, as was done with the act of October 3, to muddle the currency bill in conference?

It is not believed that the railroads of the country would ask to have undone a single act of regulation of the past ten years, however heavy the burden upon many of them may be, if they could be assured that they would be permitted to increase their rates for transportation to the point where the relation of earnings to expenditures would be sufficient to enable them to make much needed additions and improvements and to encourage capital to give them the means to make extensions. It is believed that all the men of substance and responsibility in the country, even those who feel that repeal of laws rather than new enactments is the remedy for banking conditions, would give hearty support to a currency and banking law that in its essentials should embody fundamental safeguarding of property and of individual right free from partisanry and ignorance.

If the policy outlined as quoted in the inaugural address of President Wilson should be applied at Washington with the certainty that it was to be maintained, uncertainty would end, the prevailing state of mind would pass and the time and the means would be available for dealing with the industrial system, agricultural conditions and natural resources in justice, in sanity and in safety.

### GOOD ROADS.

IN a recent advertisement a cement company gives a picture of a beautiful stretch of concrete road in New Jersey, and in connection therewith says:

The concrete road is its own foundation. Concrete is solid and even, without being slippery. It is clean and attractive and practically dustless.

Records extending over four or five years show that concrete is the nearest approach to the wear-proof road. They show the cost of up-keep to be as low as \$5 per mile per year.

These are very strong statements, especially that which gives the cost of up-keep at \$5 per year. The road situation in all its aspects, the need of good roads, the burden of bad roads, the kind of road that will fit different localities, and the cost of the up-keeping of different roads, are all matters of vital interest to practically every man, woman and child in the country—certainly to every one living outside of the limits of paved towns and cities. To them these things are of almost supreme importance. And yet the city man is almost as vitally interested, though he does not often realize it as the country man in these questions pertaining to roads.

There are many different road-building materials. For some of them claims as strong as those quoted as to concrete roads are made. The country is concerned as to which material is the best, though all of the leading road-building materials have their advantages. It is concerned as to the most thorough tests of material for the best work, all things considered. In some places expensive roads, such as concrete or brick, or even macadam, would hardly be possible. In some places the sand-clay road, well made, meets the needs of the community. But whatever may be the material to be used in any given place, the one great question before the American people bearing on material and educational and religious advancement of the country is that of building good roads.

Without good roads the country districts will deteriorate and the country church go the road to ruin, just as will the country school, because of the inability of the people to attend, and the certainty that with the continuation of bad roads there will

be greater and greater movement of population to the sections or to the cities and towns where good roads are available. In times past, when all country roads were bad, the question was less acute than it is today. Now that the value of good roads has been demonstrated everywhere, people will no longer be contented to live in regions where bad roads are tolerated. The district that still lacks enterprise enough to secure good roads will go down hill steadily—materially, morally and educationally. The districts where good roads are built and maintained will steadily advance. No longer can there be any middle ground. The good road region will be marked by progress, the bad road region by a steady retrograde movement.

### PROSPERITY IN NORTH ALABAMA TYPICAL OF WHOLE SOUTH'S IMPROVEMENT.

R. E. PETTUS, United States Jury Commissioner, Huntsville, Ala., in acknowledging the receipt of a recent letter from the MANUFACTURERS RECORD, writes:

Your letter carried me back to other days when for ten years I was president of our Huntsville Chamber of Commerce, when we counted the MANUFACTURERS RECORD one of our very best friends. Those were the days when we located ten large cotton mills, oil mills, foundries and many other plants that have given and sustained life in our community. My educational plan that you published and commented upon so favorably has largely been adopted in this and adjoining States.

This section, financially, is in good shape. Farmers have made very good crops and realized big prices for them. Land is enhancing steadily in value, crops are being diversified more and more; in this county we have 175 miles of free pikes and better roads in every nook and corner than ever before; the large farms are divided into 40, 80 and 160-acre tracts; rural delivery and telephones are the order of the day, and every neighborhood has its higher grade school, and every county its high school. Nothing but Providential intervention can impede our progress.

In several wells four hundred feet deep we have found quite a flow of natural gas of the very finest quality. A company has been recently organized to sink one of these wells to a depth of 3000 feet, when it is confidently expected that an abundance of gas will be found, or an oil gusher be brought in. There are five mammoth fruit tree nurseries in this county, one of which is said to be the largest in the world. This city was for years the home of the record-breaking Jersey cow, Lily Flag, and the Piedmont Stock Farm sends out one of the fastest string of race horses there is in the South. Old buildings, once the pride of our ancestors, are being replaced with new and more up-to-date ones. Where the old market-house stands, in the heart of the city, a five-story hotel will be erected at once, and contractors have one story of our new courthouse up with a large force of men at work.

The president of our Chamber of Commerce now is one of our most progressive young men, Edward C. Betts, who believes in doing things.

What a story of activity and prosperity is here outlined, and that too by a man who for many years has been in closest personal touch with all that section. Of a thousand other places in the South a similar story of progress and prosperity could be presented if the right man would write us as Mr. Pettus has done. Our columns are open; we invite brief statements of this kind from every reputable man, whether he be a subscriber or not. Come on with your facts as to your community.

### NO FAVORITES FOR ARMOR-PLATE SITES

THE statement in the MANUFACTURERS RECORD last week that Baltimore puts all cities in the South seeking the location of the proposed Government armor-plate plant, on notice that they will have the fight of their lives to secure it, has been interpreted by the Newport News Press as meaning that the MANUFACTURERS RECORD favors Baltimore as the location. In this respect the Press is incorrect. If an armor-plate plant be established by the Government, we trust that it will be located in the South, the proper place for it, but we are no more interested in having it located in Baltimore than in Newport News or Norfolk, or Birmingham, or Tuscaloosa, or any other suitable site in the South. The MANUFACTURERS RECORD is in no sense a local paper. It is just as much interested in the progress and prosperity of any and every city in the South as in that of Baltimore. It regards Baltimore merely as it regards every city in the South, but it



announced as a matter of news that the appointment of Robert Crain, who had been so successful in the campaign for the National Democratic Convention at Baltimore, as leader in the campaign for the armor-plate plant was a notice that other cities would have to get busy.

### A PROPHET NOT WITHOUT HONOR AMONG HIS OWN PEOPLE.

CHATTANOOGA has done many wise things, but not many wiser ones than the tribute which its representative citizens a few days ago paid in a public meeting to C. E. James, which took the form of a presentation of a painting giving an allegorical presentation of the industrial achievements of Mr. James.

For more than a quarter of a century Mr. James has been one of the great moving forces in the development of Chattanooga and the surrounding country. It has been estimated that he has brought to that city more than \$18,000,000 of outside capital for investment. But this capital, great as it is, will not be of more value to Chattanooga than the energy and the initiative and the creative work of Mr. James himself. Indeed, if he had not had these faculties this capital would not have come to Chattanooga. In that respect he was more essential to the welfare of the community than capital.

C. E. James was born in Chattanooga in 1851, his father having moved from Blountville, Tenn., a few years before. Without the opportunity for college education, he early in life became an active worker for the broad upbuilding of the industrial and general business interests of the city. He was the creative force in the building of such enterprises as the Belt Railway, the Tennessee, Alabama & Georgia Railway; the Signal Mountain Boulevard, and the Signal Mountain land development work; the Chattanooga Traction Power Co., the great hydro-electric development at Hale's Bar, the completion of which was recently celebrated; the Durham Coal & Iron Co., and other enterprises.

It is well for the South, and in this respect Chattanooga sets a good example, to recognize that the men who are achieving these things in material upbuilding are more worthy of honor than those who in public life may help to shape the laws of a State, or a nation, or who on the battlefield may help to win the nation's victories. Neither law-making nor battle-winning are the highest work in which men can engage. In material activities the greatest work which man can do for the benefit of mankind and the enlargement of the welfare of his community is the utilization of natural advantages for development, the creation of industries which give employment to people, and the establishment of enterprises which add to the comfort and convenience and the general progress of a community. The man who opens a coal mine, the man who builds a railroad or a cotton mill, the man who with far-seeing skill plans for the utilization of natural resources, the man who turns the water that has been running idly to the sea into electricity to give light and power to a community, are all doing a greater work for the betterment of mankind than the man who fills much public space in the newspapers because of his political activities, or who is heralded throughout the world as a hero because he leads some army to victory.

When the South learns that the arts of peace are greater than the arts of the politician or the warrior, when it gives its full mead of praise to the men who lead it to victories in industrial and agricultural development, to a greater extent than to the men who lead its voters to the polls or its soldiers to death on the battlefield, it will have come to a fairer understanding of the relative value which it should place upon the work of its people.

Chattanooga has done a wise thing, and the men that Chattanooga selected for the rather unique and unusual honor which its citizens paid to C. E. James in a public meeting should set other towns and cities to thinking and should stimulate the rest of the South to give full praise to the men through whose work industrial enterprises have been created, agriculture has been advanced, towns and cities built, and the general progress and prosperity of a community or a State advanced. If he who makes two blades of grass to grow where only one grew

before is a benefactor, how much more to be honored are the thousands of men in the South who have made two blades of grass to grow where none grew before; to men who have built factories where only great fields had existed; to men who have opened coal mines and iron mines, and lighted the furnace fires of the South; to men who built its railroads, developed its hydro-electric plants; and to all men who have marshalled forces of brain and energy in leading this section to greater victories in times of peace than it has ever won in times of war.

The MANUFACTURERS RECORD congratulates Mr. James on the tribute of his fellow-citizens; but it likewise congratulates Chattanooga that its people have been wise enough to pay this well-deserved tribute to a man who has done so much for the upbuilding of the community.

### APPEAL OF THE RAILROADS.

THE appeal of the railroads of the country to the Interstate Commerce Commission for the privilege of advancing rates 5 per cent. is receiving commendation from many publications and people formerly opposed to an advance in freight rates. The country has now come square up to the situation which the MANUFACTURERS RECORD persistently outlined six or seven years ago when it pointed to the fact that railroad freight rates in this country must be advanced, or else there would come a breakdown of the railways of the land from inability to earn money enough to justify the enormous investments of new capital for expansion. This does not in any way mean that all freight rates are equitable nor that there should be no adjustment of existing rates as between different cities and different States; but merely that as a general proposition the freight rates of the country are less than they should be if the railroads are to find money enough to enable them to meet the pressing demands for increased transportation facilities. We must either face an increase in railroad freight rates to such an extent as to bring about a vast increase in railroad facilities, or else we must face Government ownership with all of the disadvantages which that would bring to the whole country. And these conditions must be studied not from the light of the railroad point of view, or the investors in railroad securities (though both of these have their just claims), but from the absolutely essential necessity for the welfare of the country for increased transportation. It is to be hoped that the Interstate Commerce Commission will look with favor upon the appeal of the railroads and will act promptly in order that there may be a revival of railroad building, and railroad buying of material and equipment, that the wheels of business may again be started.

### A REMARKABLE BANKING EXHIBIT.

AN interesting and enlightening comparison of the condition of the banks and trust companies at Richmond, Va., now and three years ago, has been prepared by Mr. W. P. Shelton, assistant cashier of the First National Bank, in the form of a condensed statement and a small table appended thereto. The total figures make a gratifying revelation of the progress of Richmond's financial business. For instance, banking capital increased more than 56 per cent. in the three years, being now \$10,003,049 as compared with \$6,390,250 in the autumn of 1910. Surplus, profits, etc., grew nearly 35 per cent., or from \$6,349,838 to \$8,566,069 in the same period. Deposits, which three years ago totaled \$39,020,756, now amount to \$49,002,593, or over 25 per cent. more. Loans and investments display an increase of more than 30 per cent., having been \$44,285,436 in 1910 as against \$57,822,862 now. The increase in the total assets of all banks and trust companies, 20 in number, is well above 34 per cent., the figures being at present \$74,162,009 as against \$55,206,228 in 1910.

Six of these financial institutions have capital of at least \$1,000,000 each, and one of this half dozen—the First National—has \$2,000,000 capital with \$1,186,125 surplus and profits. Then the Planters' National, with capital of but \$300,000, has surplus and profits more than five times as great, or \$1,507,-

100; and the Merchants' National, with \$200,000 capital, has surplus and profits of \$1,182,447, or approximately six times as great. The Union Bank, with a capital of \$219,750, has surplus of \$490,445, or well over two times the amount of its capitalization. The Old Dominion Trust Co., with \$1,000,000 capital, has surplus of \$1,065,030; the Savings Bank has \$200,000 capital and \$236,004 surplus. The Mechanics and Merchants' Bank, capital \$100,000, also has surplus greater than its capital, or \$116,587. Other large surpluses in proportion to capital are shown by the National State and City Bank, capital \$1,000,000, surplus \$754,247; American National Bank, capital \$1,000,000, surplus \$652,192; Broad Street Bank, \$200,000 capital and surplus \$135,642; Bank of Commerce and Trust, \$250,000 capital, surplus \$158,874.

Ten of these banks and trust companies have deposits amounting to more than \$1,000,000 each, five of this number totalling their deposits at more than \$5,000,000 each; three of them at more than \$7,000,000 apiece, and one at almost \$13,250,000, its deposit line being less than five thousand short of that figure. Furthermore, thirteen of the twenty financial institutions have total assets of more than \$1,000,000 each, eight of them more than \$2,000,000 apiece, five of them more than \$7,500,000 each, and one of them nearly \$19,500,000.

The increase of 35 per cent. in deposits in three years was an average annual gain of nearly 12 per cent., while population gain during the same period was probably not over 2 to 2½ per cent.

This is a wonderful exhibit of financial strength and prosperity, one which would be highly pleasing if made by many a larger city than Richmond, whose population, according to the last census, was 128,000.

### IMPORTING IRON ORE THROUGH HAMPTON ROADS.

THE Richmond *Virginian*, referring to the suggestion of the importation of iron ore through Norfolk and Newport News, says:

The MANUFACTURERS RECORD makes a suggestion to the railways of Virginia which, if feasible and if followed, should be of great benefit to the State, to the railways and to the iron interests of the State.

As emphasizing the feasibility and the desirability of the development of this iron-ore importing business, we publish in this week's issue a letter from Mr. Charles Catlett of Staunton, the distinguished iron-ore expert, than whom there is no higher authority in the country on matters of this kind, heartily commending this proposition. President Stevens of the Chesapeake & Ohio likewise writes in commendation of it and states that he has endeavored to interest the iron interests of Virginia in the undertaking.

Mr. Catlett very wisely points out the fact that it is not simply the maintenance of the existing furnace business in Virginia that must be considered, but that the broad development of iron-making in the State is dependent upon a larger supply of ores. He believes that with this importation through the Hampton Roads section of foreign ores there will be created conditions which will make possible the broadening of all the iron interests of the State.

### COMPLETION OF \$4,000,000 WIRE PLANT.

THE Tennessee Coal, Iron & Railroad Co. is beginning to deliver steel billets to the American Steel & Wire Co. at Fairfield, Ala. The American company, as generally known, is one of the subsidiaries of the United States Steel Corporation. The plant has been erected at Fairfield near the Ensley plant of the Tennessee company at a cost of about \$4,000,000. A few weeks ago Vice-President Miller of the American Steel & Wire Co. wrote the MANUFACTURERS RECORD that the plant would be ready for operation about January 1. The starting of this plant will be of very great importance to the Birmingham district, and thus to the whole South.

## Notes by the Way in Dixie

Last week this column said that economic conditions were making good streets and good highways more vital than ever before. The South is rapidly realizing this and also appreciating the need of other municipal improvements. Many of the smaller towns throughout the South are displaying an energy in municipal betterments worthy of cities many times their size. All along the highways of the South one finds small towns putting in sewerage systems, paving streets, laying sidewalks, and doing other things to add to the comfort of life and the health of the people. There are few places where the motorist can travel without having to try new roads or new streets, because the through roads and through streets are being repaired or rebuilt. You can never travel very far in any part of the South without finding the road-making gang ahead of you, and along all these roads there is much improved machinery in operation. It is easily seen, however, that a good deal of this work is not being done wisely nor under adequate engineering skill. A great amount of money is being wasted in road-repairing work. A gang of laborers will be sent along a road without adequate tools or without engineering direction, merely working under some boss who has done the work for years and knows nothing about doing it except in the same old way. They scrape up a little mud or sand along the roadside and throw it into the middle of the road. Regardless of wet weather or dry, it stays there without being rolled or dragged, and the first heavy rain either washes it away or else so softens the roadbed that it becomes well-nigh impassable. Roads traveled two months ago, and the work that was then being done carefully watched and traveled a few days ago, in many cases showed that all the work was worse than a waste of time and money, for their condition now is not as good as before the work was done. By some this is charged to politics and to inadequate appreciation on the part of some county officials of the methods of road work necessary to secure the best results, but some others charge that contracts are let for short stretches only, so as to give jobs to as many contractors as possible, and thus few contractors have a stretch of work long enough to justify the purchase and use of modern road-making machinery. In these times when highway improvement is the order of the day, when people are enthusiastically at work for better roads and gladly voting money with which to pay for building them, there ought to be an awakened public sentiment to make certain that all road improvement will be done under the direction of competent engineers.

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The highways of this country are to become like the rivers and the oceans—the great highways of commerce. The railroad is a fixed proposition, owned by one corporation. It runs its own trains, and every traveler and shipper is compelled to follow its rules as to the method of handling passengers or freight and as to the rates to be paid. This is a necessity, for the railroad as it exists could not be operated in any other way. But the highways that are being built by towns and States will be like the ocean or the rivers—great paths for trade, open to every man who cares to run a motor truck or an automobile or a wagon over them. The rivers and the bays and the oceans of the world are free to every man who can command money enough to own anything from a canoe to an ocean steamer. He may carry freight at his own convenience and at his own rates. The development of the motor-boat industry is opening up possibilities for a vast development of cheap carriage of freight along the rivers and the bays of the world. The improved highway, owned by the people, will be open to carriage by the motor truck to every man who cares to run one, whether for handling his own business or for handling freight for others. In Baltimore, for instance, there are some large furniture-moving motor trucks or motor vans. If a family wants to move to Washington, 40 miles away, or to Hagerstown, up in the mountain region, 70 miles distant, or to other points accessible by good roads, these motor vans will back up to the door, load the furniture carefully and later in the same day deliver it without extra handling at the new residence in Washington or Hagerstown or elsewhere. Until the adoption of this system a man moving from Baltimore to Washington would have to pack his furniture, have it shipped to the railway depot, rehandled there, stored in the car, which might take one day or several to

reach Washington, according to the amount of freight on the road; be unloaded at Washington, reloaded into a wagon, carried to the house and unloaded there. The motor van eliminates the necessity of all this, and the man may move out of Baltimore one morning and set up his housekeeping in Washington that evening with all his furniture in place. This is only typical of what will be done throughout the country through the development of good roads. Indeed, one of the foremost railroad presidents of the South is quoted as having said that he believes the day for the building of short lines of road to open up new properties or to reach small towns has passed away. He believes that the motor truck running over a good highway will in the future have to do all the work that heretofore could be done only by the building of branch roads running out into country districts and acting as feeders to the main line. His view is doubtless correct to a large extent. Therefore, the town or the community which lacks railroad facilities is not likely to find it so easy in the future to induce the building of a new line, but will of necessity have to depend upon the building of good roads and the use of these roads by motor trucks and automobiles. The responsibility for this development is, therefore, thrown on the people themselves. They cannot blame the capitalists of the country for not building branch roads when they clamor for them. We have reached the point where the people will have to assume the responsibility of paying the cost of reaching nearby railroads through improved highways, with their freight and passengers handled over them, thus lessening the burden on the railroads for the building of branch lines. In no other way will it be possible under present conditions to meet the increasing demand for transportation in this country. It is an interesting subject, because the people themselves will have nobody to blame but themselves for the lack of good roads and for the use of these roads by automobiles and motor trucks. They cannot blame some distant capitalists by denouncing them for lack of transportation facilities. It will be all that the railroad people of the country can possibly do even under the most favorable conditions, which, unfortunately, are not yet in sight, to find money enough to improve existing lines, build better roadbeds and make travel safer, and increase their facilities so as to enable them to handle the freight that will be offered. No broad expansion of railroad building is in sight, though 10 years ago Edward Atkinson, the political economist, who was so clear in his forecast of the needs of transportation, stated that in the next decade the country would need to build an average of 10,000 miles of road to meet the increasing needs of its growth. Mr. Atkinson's theory was correct, but he could not foresee the conditions which have come about which have made it impossible for the railroads to find the money with which to do the work. Instead of building nearly the 10,000 miles which he forecast as a necessity certain to be achieved, we have built in that period only about 4800 miles a year on an average.

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In the Sand Hill regions of North Carolina a revolution has been wrought, as previously stated in these Notes, in the matter of road building, but the lesson taught is so valuable that the facts will bear repetition. Up to seven or eight years ago one might as well have tried to drive across a newly-plowed field as over any of the roads in Moore county. They were almost impassable sand heaps, and a horse could only wearily drag a buggy at a slow pace. Outside of Southern Pines, which for a time was stagnant partly because of these conditions, and Pinchurst, which was being made successful because of the tireless energy and the great wealth which enabled Mr. Tufts, and after his death his son, to push that unique development, Moore county was a dreary region. Five years ago there was a stretch of country in that county in which for 16 miles there were only three small houses and only 200 acres of land under cultivation. A good road was built, and on that same 16-mile stretch there are now 200 dwellings, many of them exceptionally attractive, and expensive farmhouses, and 50 per cent. of the land is under cultivation, yielding large crops. The roads of Moore county are sand-clay roads. They have been built at a cost of about \$300 to \$500 a mile, and can be maintained at a cost of about \$20 or \$30 per mile per year, but when well maintained they are so good for every road purpose that Moore county

could not afford to accept as a gift a hundred miles of macadamized road. The right mixture of clay and sand on the sand foundation of that region has made it possible to build and maintain at these triflingly small figures roads which for motor-truck hauling and motoring are as good in efficiency and in comfort of travel as the best roads of New England, and, of course, by reason of the character of the material, far superior for all horse-drawn vehicles and for the comfort and safety of horses. The discovery of deposits of clay throughout the county, which, mixed with the sand, enables these splendid roads to be built at so small a cost, suggests the wisdom of a careful study by every county in the South of the best means of securing good roads. It may perchance be that these sand-clay roads, which have proved so good in other parts of the South as well as in Moore county, could be built in many places where they have not been used, or it may be that there are other local materials available for good road work. At some points in Florida there are deposits of shells in such quantity as to make shell roads easily constructed. There are some available supplies of rock in the phosphate district, and there are limestone formations in other parts of the State. Some of these materials have been tested and in places they have worn well, while in other places the roads, either through bad engineering in their building or lack of maintenance, have gone to pieces. Florida is running very largely to brick road building, and is spending millions of dollars, or is preparing to spend sums that will run far into the millions, in brick highways. They are, of course, exceptionally desirable in many sections, just as concrete roads are especially valuable in other regions, but it is not always absolutely necessary to depend either on brick or concrete in order to get fine roads equal to every need. And yet no experiments should be made in road building or in the spending of money, which counties are so liberally voting for road improvement, without the most thorough investigation by competent engineers. Every State should have a road department, under the charge of men of the highest ability and integrity, charged with the responsibility of co-operating with towns and counties in planning road building and in the selection of road materials. Every State which fails to have a highway commission adequately equipped with men and money to co-operate with the work of this kind will fall far short of its responsibility to its own people. A new era is upon us in road building, and the South must get the best results at the lowest costs.

R. H. E.

### To Import Mexican Oil.

Board of Trade,  
Texas City, Tex., December 6.

Editor *Manufacturers Record*:

The importation of Mexican crude oil from the Tampico fields through Texas City for distribution throughout the Southwest is expected to start during the present month. Preparatory to instituting this enterprise the Pierce-Fordyce Oil Association, owner of the large refinery at this place, has expended between \$40,000 and \$50,000 in putting in a modern pumping plant.

The tank steamers will dock at a specially constructed pier built by the Texas City Transportation Co. for use by the oil company. Two pipe lines, one of eight-inch pipe and the other of six-inch pipe, connect the pier with the refinery, one mile inland. Located near the water front is the pumphouse, in which has been installed a Gould's triplex pump and a 150-horse-power motor. The current is supplied from a generator at the refinery driven by a 200-horse-power oil engine. The pump has a capacity of 1000 barrels per hour.

The company has built two 55,000-barrel storage tanks, which connect with a loading rack with a capacity of 20 tank cars. It is understood to be the intention of the company not to refine the Mexican product, but to sell it as fuel oil.

L. C. TALMAGE.

### American Architects.

At its annual meeting last week at New Orleans the American Institute of Architects elected R. Clippson Sturgis of Boston, president; T. R. Kimball of Omaha and F. C. Baldwin of Washington, vice-presidents; J. L. Mauran of St. Louis, treasurer; D. Knickerbocker Boyd of Philadelphia, secretary; T. J. T. Fuller of Washington, auditor.



# South Wins American Road Congress

NEXT MEETING OF THE ORGANIZATION TO BE HELD IN ATLANTA.

The next session of the American Road Congress will be held in Atlanta in the week of October 19, 1914.

The MANUFACTURERS RECORD has always believed that the presentations which it made from time to time to the directors of the American Road Congress as to why the next session should be held in the South were unanswerable, and that men of broad national views, such as they are, would be certain to give heed to the advantages of the South as the place in which to hold this meeting. The reasons why it should be held in the South are many, and these reasons were pressed with vigor upon the attention of those upon whom the decision rested. We rejoice with the South, and that once more the MANUFACTURERS RECORD has been able to render such a signal service to this section.

The next congress will prove of tremendous advantage to the South, and the South will prove to be a revelation to many people from other sections who will, for the first time, have the chance of studying what the South is doing in road building and the limitless resources and opportunities of this section. The next session of the Road Congress will probably be attended by 4000 to 5000 delegates and visitors. Perhaps by many more. But any gathering which brings together 4000 or 5000 road engineers, road machinery building people and others interested in the great question of road-making will be of far-reaching importance. At that congress 150 to 200 of the leading road machinery builders of the country, making all kinds of road machinery, and manufacturers of road building material, will be in attendance with such exhibits of road machinery and materials as have probably never before been gathered together in this or any other land. Men from the North and West will attend that convention to study every phase of road engineering, road building and road maintenance. Great indeed will be the opportunity for every man in the country interested in all the broad questions of road work to study every phase of this problem.

Atlanta can well afford to make preparation of the very broadest kind for the handling of the congress, for the exhibition of machinery in connection therewith and for bringing to the city many engineers, road superintendents, county commissioners and other people from all sections who will be interested in and benefited by a great exposition of road-building materials, and by a study of this connected with road work and the influence of good roads upon civilization.

At the request of the MANUFACTURERS RECORD members of the Executive Committee of the American Highways Association, under whose auspices the American Road Congress is held, have telegraphed or written briefly their views of the meeting at Atlanta as follows:

## For a Sane Policy for Roads.

Logan Waller Page, director of the National Office of Public Roads, Washington, D. C., and president of the American Highway Association:

"The main reasons for the selection of Atlanta were: First, that we considered more good could be done by holding the congress there than in any other Southern State, as Georgia is one of the few large Southern States which has no State highway department, although much money is being spent there on road work. Second, it seemed, on account of its central location in the South, more convenient for the attending delegates than any other city with equal facilities.

"It is my belief that the congress will be the largest road congress ever held, and that the exhibits will be the best ever made at a road meeting. The congress should do a very great deal of good toward promoting a sane policy in the improvement and maintenance of the public roads throughout the country, and particularly in the South."

## The South the Logical Place.

J. E. Pennybacker, secretary American Highway Association, Washington, D. C.:

"The selection of Atlanta as the meeting place of the fourth American Road Congress during the week of October 19, 1914, was due to the very general conviction

that the South is logically entitled to the congress, partly in geographical sequence and partly because of the splendid progress which the South is making along all lines of industry. One of the serious problems of the nation is that which has to do with the adjustment of production and consumption of food products so as to lighten the burden resting upon both the producer and the consumer. Nowhere is there a more promising field for a vast agricultural production than the South, and nowhere is there a more earnest and sincere effort being made to develop natural resources than in the South. Good public highways throughout the South will be a boon to the whole country, for they will help to solve the serious economic problems of our time.

"The progressive spirit of Atlanta is wonderful; its convention facilities unsurpassed on this continent; its county roads really equal in quality to those of any county in the United States. Georgia is doing a great work with its State convicts on roads. Altogether, I feel that the choice of the committee insures a more successful road congress than has ever been held in this or any other country."

## To Benefit the Whole Country.

L. E. Johnson, president Norfolk & Western Railway Co., Roanoke, Va.:

"This organization has accomplished large results in the inspiration and stimulation of our American communities along road improvement lines. Their recent meeting at Detroit was a most interesting and instructive one, and was largely attended by delegates from every section of the country. The comprehensive display of road material and machinery at Wayne Gardens was an education within itself, and the South is to be congratulated on having captured this meeting for next year. On the other hand, our good friends of the American Highway Association are also fortunate in their selection of next meeting point. No other section of the country has developed more rapidly or substantially during the past decade than the southeastern section of the United States. This territory has accomplished more, perhaps, in the matter of permanent road building and improvement, in proportion to its revenue, than almost any other section with which I am familiar.

"The South needs more improvement of highways to open up its idle farm land territory, and thus assist in repopulating these non-productive acres. It is a well-known axiom that no country can continue to prosper if handicapped with a defective agricultural system. More than 200,000,000 acres of agricultural lands in the Southern States are lying idle and non-productive today, because our rural population is so small in comparison to the land to be cultivated. Three primary factors are necessary in overcoming this condition: First, advertising of our farm resources; second, development of a more attractive environment; third, encouragement, appreciation and instruction to the newcomer after he is located.

"Improved highways and good schools are the greatest factors in bringing about attractive environment, and this meeting of the American Highway Association at Atlanta next year will prove an added inspiration and encouragement to our people. The phenomenal progress of the South during the past quarter of a century is going to be eclipsed by her progress during the coming quarter, I believe, due largely to the widely-awakened interest in and appreciation of improved permanent highways."

## Command a Generous Attendance.

A. G. Batchelder, chairman executive committee American Automobile Association, New York city:

"The holding of the American Road Congress in Atlanta will mean a great deal to the South, which requires highways improvement in order to accelerate its undoubted commercial possibilities. Atlanta is the hub of railroad communication, as it will be in future highways progress. Railroads will inevitably supplement their freight service by utilizing the motor truck for short hauls, a class of business usually unprofitably handled at present. Since zone fits into zone, the transport of commodities and farm products requires a comprehensive interrelated system which shall include interstate, intrastate, county and township avenues of communication. The Atlanta meeting should command a most generous attendance, and its greatest

value will be to make clear the fact that highways improvement concerns both the main arteries of travel which connect the several counties and join the larger centers of population, as well as essential attention to the feeder roads which lead back to the farm."

## The Benefit to the South.

George W. Cooley, State Engineer of Minnesota:

"At the Detroit convention I stated to the Georgia delegation that if Minneapolis was not considered I should certainly be in favor of Atlanta as the most suitable city in which to hold the next good-roads congress. Now I am pleased and satisfied that one of the most beautiful of your Southern cities has been selected. I have tasted of your hospitality and will be glad once more to meet with you. I wish you a full measure of success, and feel sure that this gathering will prove to be a good meeting and of great benefit, not only to Atlanta, but to Georgia, to the whole South and to the whole country."

## As an Inspiration to Progress.

W. T. Beatty, president National Association of Road Machinery and Material Manufacturers, Chicago, Ill.:

"The holding of an American Road Congress at Atlanta will draw hundreds of road officials from surrounding country who would not attend at a greater distance. They will return, some with a larger knowledge of the value of good roads to a community, of what sister States are doing in that line, of the kind of roads best adapted to their own local conditions and of everything pertaining to the subject, which they will radiate and disseminate to their neighbors and constituents for months to come. The results will appear later in more improved roads of a really satisfactory character in nearly every locality in which one of these good-roads Elijahs proclaims the gospel of what he saw and heard at Atlanta."

## The South Especially Appropriate.

James S. Harlan, Interstate Commerce Commission, Washington, D. C.:

"The movement for good roads ought to be as broad as the country itself. The lack of good roads will make big any country, however small may be its geographical area. On the other hand, be a country ever so large, geographical distances are in a measure lost sight of when the different parts of the country are readily accessible one to the other through a network of good roads. That the next session of the American Road Congress should be held in the South, where so much has been done and is being done in the furtherance of the good-roads movement, seems especially appropriate."

## The South Will Surprise.

Leonard Tufts, president Capital Highway Association, Pinehurst, N. C.:

"I agree with you most heartily that Atlanta is the best place for holding the next American Road Congress. The South is spending an enormous amount of money now for the construction of roads, and much of this work is being done without proper supervision, as the work is so new that the people have not had time to learn how. Holding the American Road Congress in the South will be an enormous benefit, and it can be of tremendous educational value, especially to those who are working on the road problem in North and South Carolina, Georgia and Florida.

"Holding it in Atlanta will also give people from other sections an idea as to the amount of good work that is being done in the South, and I feel sure that they will be very much surprised to find that in many sections the macadam, brick and concrete roads are not necessary, and, in fact, are not as good as many of the forms of dirt roads that are used in the South."

## For Upbuilding of the South.

James H. MacDonald, State Highway Commissioner of Connecticut:

"I wish to say that I heartily approve of the choice. It was my very delightful privilege in my early manhood to pay a visit to the city of Atlanta, and I enjoyed the very delightful hospitality extended to me.

"The location for the congress is wisely chosen by reason of the fact that the South has been very much neglected, in my judgment, in the holding of these great conventions. The spirit of enterprise and progress

is abroad in the South, and I know of nothing that will assist materially its growth to a greater extent than a holding of one of these great conventions. Wherever the association has held a convention it has been productive of great good not only to the State in which the convention is held, but also to the immediately adjoining States. There is no factor, in my judgment, that will assist toward the upbuilding of the South to a greater extent than by improving the public roads.

"The purpose of holding the congress is threefold—first, it is a deliberative convention; second, it paves the way from its deliberation for legislation, and third, it brings together to the notice in an unanswerable object-lesson the modern equipment and material used in the actual building of roads."

#### Takes Off His Hat to Atlanta.

P. T. Colgrove, president Michigan State Good Roads Association, Hastings, Mich.:

"Personally I am much gratified that our committee has selected Atlanta for the next meeting of the American Road Congress. There are many reasons why this selection is a wise one.

"The Northern States have watched with great interest the development of the South and the zeal and earnestness manifested in the upbuilding of her highways. The prosperity of the South and her continued advancement means much to every State in the Union, and it would seem to me that the patriotic appeal made by the representatives from Atlanta at the last congress, held in the city of Detroit, is worthy of the action taken by

the committee having in hand the fixing of our next meeting-place.

"It would seem almost impossible to surpass the congress held at Detroit, where the exhibits alone occupied 322,000 square feet of floor space and represented 320 manufacturers. I feel confident, however, that the marvelous growth of the South during the last 25 years, her magnificent progress in road building, together with the fact that thousands of the North who have never had an opportunity of visiting this great thriving section of our country, will take advantage of this meeting not alone for the purpose of studying and better understanding road construction, but also to better understand the South.

"I look forward to one of the greatest gatherings of the kind ever held in this country. While I was both jealous and proud of the magnificent turnout at Detroit, I take off my hat to Atlanta."

#### An Incentive and an Inspiration.

Clarence A. Kenyon, president Indiana Good Roads Association, Indianapolis, Ind.:

"Let me send you my word of congratulation on the selection of Atlanta, Ga., as the next meeting-place of the American Road Congress. The South is surely coming into its own. It is one more feather in her cap. It will be good for the South and it will be good for the other sections of the country to know what the South is doing, not only in road building, but in other ways. Few people realize the tremendous strides the South has been making in the past decade. It will be an incentive and an inspiration. I sincerely trust there will be a great gathering, as I feel sure there will."

## To Utilize Foreign Iron Ores in Southern Furnaces

By CHARLES CATLETT, Chemist and Geologist.

I have been greatly impressed with the suggestion contained in a recent issue of the MANUFACTURERS RECORD in regard to the use of foreign iron ores in this country.

I recently had an opportunity, while attending the hearings in the suit for the dissolution of the Steel Corporation, to listen for a couple of weeks to descriptions of the known available iron-ore resources of the world.

There is absolutely no question that the next five or ten years will mean an enormous increase in the foreign ores available for use in this country. And everyone who is directly or indirectly interested in the iron industry should study the proposition with a view to utilizing to the best advantage the opportunities which will thereby be presented.

Among the organizations which should be interested are certainly the Chesapeake & Ohio and the Norfolk & Western railways. These roads have the best of Western connections. They deliver at seaboard an enormous amount of most excellent coking coal, which is sold at a very low price for steam purposes. These coals are remarkable in being both high-grade coking coal and high-grade steam coal.

Each road has along its line a number of furnaces which are suffering from inadequate ore supply. Even where they are able to secure sufficient ore to operate at the present rate of production, there is probably not a single iron industry on either of these lines whose ore supply is such as to encourage the owners to increase development. These furnaces are well located; have established markets; have abundance of the highest grade coke at a reasonable price, and they have a certain amount of local ore of good quality. If they could be assured of an ample supply of foreign ore at a price which would enable them to use it under present conditions, not only would the iron industry on these two lines be perpetuated, but it would probably have a steady and healthy growth.

Each of these roads carries west from the coast to the coal fields of West Virginia thousands of empty coal cars annually, and these cars pass directly by a number of the iron furnaces. It is hardly necessary to point out how cheaply it would be possible for them to handle iron ore from the coast to the points of consumption.

It is certainly up to these roads to investigate the

conditions and to see whether, all things considered it is not to their interest to provide facilities for unloading and transporting foreign ores to their local furnaces. In my opinion, they are missing a great opportunity if they do not do so.

I think your suggestion that such a movement would ultimately result in the development of iron industries in foreign countries to which we would ship coking coal, and the development of coastwise furnace plants in this country to which the ships carrying an outward cargo of coal would bring back cargoes of ores, is in the nature of a prophecy. It is bound to come.

Staunton, Va.

#### President Stevens of C. & O. R. R. Anxious to Co-operate.

President Geo. W. Stevens of the Chesapeake & Ohio Railway Co., in a letter to the MANUFACTURERS RECORD in regard to this matter, says:

"I have noted with interest your editorial on the subject of importation of iron ore via Hampton Roads. This company is deeply interested in this matter, and has repeatedly offered very low rates from that port to the iron furnaces in the vicinity of Clifton Forge with a view to utilizing the foreign ores as a mixture with Virginia ores, producing a high quality of iron. We are still ready to co-operate with the owners of furnaces in this movement."

#### Not Detrimental.

H. B. Spackman of Coatesville, Pa., president of the Allegheny Ore & Iron Co., operating furnaces at Buena Vista and Iron Gate, Va., writes:

"We do not know whether we will be particularly interested in the importing of ores, as we have mined sufficient to take care of our small furnaces in Virginia, and we are afraid it would be rather detrimental."

[Mr. Spackman, however, does not say how the iron business of Virginia must have a larger supply of ore if it is to be adequately developed.—Ed. MANUFACTURERS RECORD.]

#### TEXAS INDUSTRIAL CONGRESS.

#### Awards to Be Made of \$10,000 in Cash Prizes in Its Crop-Growing Contest.

On account of the serious illness of Col. Henry Exall, its president, the annual convention of the Texas Industrial Congress, which was to be held at Dallas next Saturday, has been postponed until February. At the convention will be announced the names of the successful contestants in crop growing in 1913 and award cash prizes aggregating \$10,000, of which \$3,000 will be for four crop model demonstration farms, \$2,000 for the Texas Corn Club, \$2,000 for the Texas Cotton Club, \$1,000 for unirrigated forage crops, \$1,000 for irrigated forage crops and \$500 to any contestant who shall win the first prize in the first and third classes. At the convention President Henry Exall will make his annual address, and other speakers will be Prof. Charles B. Austin of the University of Texas, on the marketing of agricultural products; Clarence Gusley of Fort Worth, on elimination of waste in marketing; Prof. C. M. Evans of the State Agricultural and Mechanical College, on the use of the silo in saving drought-stricken crops, and by Prof. C. P. Bull of Dallas, on the sixth national corn exposition.

#### To Manufacture Scales.

The Independent Scale Co., Asheville, N. C., has completed its plant, the monthly capacity to be 500 scales and 50 skilled workmen to be employed. It has erected a stone and brick fireproof building 200 feet long by 50 feet wide, containing main floor and basement. This structure is supplied with plenty of natural light through 14 triple windows, and the floor is of hard oak, while the roof is of asbestos for protection from flying sparks. Steam is used for heating and electricity for power and light. The various departments include those for raw material, foundry, nickel-plating, pattern storage, machine work, enameling, assembling, packing, etc. This company was recently organized by men connected with the Kansas City Scale Co., whose holdings were purchased by the new company. Its officers include: President, J. P. Sawyer; vice-president, H. W. Plummer; secretary-treasurer, L. H. Jones; manager, H. B. Sherwood.



MURCHISON BUILDING, WILMINGTON.

To be erected for Murchison National Bank; 63x106 feet; 10 stories; fireproof construction; slag roof; steam heating; 3 electric elevators; cost \$275,000; architect, Kenneth M. Murchison, New York; construction bids opened December 15.



# National Rivers and Harbors Congress

[Special Correspondence Manufacturers Record.]

Washington, D. C., December 5.

The strict adherence to its slogan, "A waterway policy, not a waterway project," and the absolute necessity for full co-operation of the State and Federal governments to obtain the most comprehensive and beneficial results from waterway development, were the leading features of the various addresses made and resolutions adopted at the tenth annual convention of the National Rivers and Harbors Congress, held in Washington this week. No convention held in the country draws together annually so many leading men of affairs in all walks of business and professional life, which strongly reflects the great interest and growing demand from all parts of the country for the broadest possible development of the nation's waterways for transportation purposes.

As pointed out by Senator Joseph E. Ransdell of Louisiana, the president of the association, the concentration of public sentiment, through the annual meetings of the Rivers and Harbors Congress, has served its purpose so well that appropriations for this work have risen from \$20,000,000 a year eight years ago to \$50,000,000 annually now, and he added it was hoped that the present Congress would pass the greatest river and harbor bill ever enacted. President Ransdell has urgently insisted that the waterways, when improved, must be used and that adequate free public harbor facilities must be provided by city and State governments, otherwise he would not favor the continued appropriations for waterway improvement by the Federal Government. President Wilson, who was prevented by sickness from making the principal opening address, was represented by Secretary of Interior Lane, who read the following letter from the President:

"I wish most sincerely that it were possible for me to convey to you in person my cordial welcome to Washington. Your consultations lie in a field which engages my deepest interest. I congratulate you on what the congress has already accomplished, not only in awakening the country to the importance of the great subjects it handles, but also in bringing us within sight of a time when all interests shall be harmonized, and we shall be able to agree upon a comprehensive and concerted plan for the benefit of the whole country. I take the liberty of sending you my cordial greetings and my best wishes for the success of your deliberations."

Secretary Lane emphasized the absolute need of public control of harbors, and added that they must be owned by the States and furnished the part which the States can play in the development of waterways, and urged that the delegates must see to it that no private interests shall control these harbors which give access to the ocean. Secretary Lane also pointed out that in advocating waterways as freight carriers, that he was not in any way attacking the railroads, and said:

"There can be no policy adopted that will make against the interests of the railroads. They are vital to the life of the nation. No other nation is so dependent on the railroads as we. Cities abroad can live unto themselves, because in their neighborhoods are industries and resources that will support them. In this country California grows crops to feed New York, and New York manufactures articles for use in California. The railroads are indispensable. It is our highest duty to do all we can to support these enterprises, even though they are conducted by private capital, but we must use the waterways which have been neglected."

A very interesting address was made by Brazilian Ambassador da Gama, who told what that great South American republic was doing, not only in waterway development, but also along general industrial lines.

Hon. John D. Hazen, Minister of Marine and Fisheries of Ottawa, Canada, spoke in detail of what Canada was doing, and his address, combined with the statistics he gave of actual development work, showed that Canada was keenly alive to the advantages to be derived from proper waterway development.

Numerous other interesting addresses on waterway needs and developments in the various parts of the country were delivered during the three-day session, a full list of these having been published in the MANUFACTURERS RECORD last week.

On Wednesday evening a reception was tendered by the Rivers and Harbors Congress to Vice-President and Mrs. Marshall, and Speaker and Mrs. Clark, following which were addresses by Mrs. Sarah Willard Strout, president of the Women's National Rivers and Harbors

Congress, on "Developed Waterways and Their Relation to the Home-maker," and by Mrs. William E. Andrews, director of General Federation of Women's Clubs, on the "Interest of Club Women in Waterway Development."

Resolutions were adopted approving the exemption from toll of American coastwise vessels passing through the Panama Canal; favoring the creation of a department of public works, headed by a cabinet officer; public ownership of water terminals; legislation that would prevent control by railroads of water transportation; providing for the standardization of waterways as to depth and width; declaring for a comprehensive policy on waterway improvement, with an annual appropriation of \$50,000,000.

On the matter of the water-power question the resolutions stated clearly that the policy of the Rivers and Harbors Congress is to promote the improvement of harbors and waterways for the purpose of transportation and commerce without reference to any particular project, and further declaring that "The activities of the congress are limited to the object stated. While some of our waterways may be put to beneficial uses in addition to the paramount claim of navigation, and while it would be wise in such cases that the full benefit of such waterways should be attained, having constantly in view their subordination to navigation, the advocacy of measures looking to the use of our waterways for purposes other than those of navigation is beyond the scope of the purposes and policies of this congress."

It was decided to hold the 1914 meeting in Washington, and to recommend to the new board of directors that San Francisco be selected for the 1915 meeting on account of the Panama Exposition to be held there.

Senator Joseph E. Ransdell was re-elected president; S. A. Thompson, secretary, and Col. John I. Martin, sergeant-at-arms. The following directors were elected:

North Atlantic Seaboard—Olin J. Stephens, New York; George E. Bartol and Theodore Justice, Philadelphia; E. W. Douglas, Troy, N. Y.; Willard Thompson, Baltimore; Frank Fessenden Crane, Quincy, Mass.; A. V. Hamburg, Newark; Charles R. Miller, Wilmington; R. W. Miller, Bridgeport, Conn.; Senator Jacob H. Gallinger, New Hampshire; George F. Washburn, Boston.

South Atlantic Seaboard—Walter Clark, Raleigh, N. C.; John C. Freeman, Richmond, Va.; Senator D. U. Fletcher, Florida; F. Horton Colcock, Columbia, S. C.; L. R. Aiken, Brunswick, Ga.; Howell M. Miller, Washington, Va.; S. P. Gilbert, Columbus, Ga.; and A. W. McKeand, Charleston, S. C.

Gulf Seaboard—Martin Behrman, New Orleans, La.; S. Holman, Thomas P. Hale, J. W. Worthington, T. Cheney Lawless, J. S. Cullinan, Houston, Tex.; Lewis Fisher.

Mississippi Valley District—W. K. Kavanaugh, St. Louis, Mo.; J. L. Mesmores, St. Louis, Mo.; John A. Fox, Thomas Wilkinson, Burlington, Iowa; M. J. Roach, Memphis, Tenn.; J. W. Cooper, Charles Scott, Rosedale, Miss.; O. N. Killough, Wynne, Ark.; A. L. Shapleigh, Wilbur F. Decker.

Great Lakes District—James H. Davidson, Oshkosh, Wis.; Henry W. Hill, Buffalo, N. Y.; T. Edward Wilder, Chicago, Ill.; Julius H. Barnes, H. I. Shepherd, Toledo, O.; P. W. Cullinan, Oswego, N. Y.; Perry A. Randall, Fort Wayne, Ind.; William A. Meese, Moline, Ill.; A. G. Wells, De Pere, Wis.

Ohio Valley District—Albert Bettinger, Cincinnati, O.; John L. Vance, Columbus, O.; W. B. Rodgers, Pittsburgh, Pa.; George Parsons, Cairo, Ill.; Pinkney Varble, Louisville, Ky.; M. C. Garber, Madison, Ind.; M. S. Sonntag, R. F. Sommerville, A. B. White.

Tennessee and Cumberland District—M. T. Bryan, Nashville, Tenn.; J. A. Patten, Chattanooga, Tenn.; E. C. Camp.

Arkansas Valley District—L. J. F. Roney, Tulsa, Okla.; R. T. Daniel, Tulsa, Okla.; W. M. Cavanaugh.

Missouri Valley District—W. T. Bland, I. P. Baker, Bismark, N. D.; Harry L. George, St. Joseph, Mo.; W. B. Wait, Chamberlain, S. D.

Pacific Coast District—A. H. Devers, Portland, Ore.; Joseph R. Knowland, W. D. Lyman, Walla Walla, Wash.; R. C. Beach, Lewiston, Idaho; C. B. Yandell.

Hudson, Champlain and Genesee Valleys District—Lewis Nixon, F. W. Joslon, John R. Meyers, Edward N. McKinney, James R. Hutchins.

WILLIAM H. STONE.

## Development at Port Arthur.

During the past year the city of Port Arthur has constructed 110,000 square yards of shell macadam street paving and 34,365 square yards of asphalt street paving. To cover the cost of this work the city voted a bond issue of \$100,000. Property owners were charged with two-thirds of the cost of construction, making a total of \$300,000 expended.

The city has purchased the water system at a cost of \$140,000, and for the location of the present water supply, 200 acres, seven miles from the city, there was paid \$37,000. Two wells were constructed on this property at a cost of \$12,000. These wells have a daily flow of 1,159,000 gallons. A conduit of California redwood was constructed from the wells to Port Arthur at a cost of \$125,000. The city water mains are now being extended and improved at a cost of \$20,000.

The city purchased the sewer system at a cost of \$123,000. This system is now being extended at a cost of \$20,000.

A new city hall has recently been built at a cost of \$20,000.

A new fire station has been constructed and additional equipment provided for the fire department at a cost of \$10,000.

A year ago the drainage system was completed at a cost of \$50,000. There are now three pumping stations being operated by electrical power. These plants have a capacity of 3,500,000 gallons per hour.

The city has expended \$33,000 for sidewalks and curbing.

Thirty thousand dollars has been provided for improvement of the city jail and more completely equipping the sanitary department.

A gas plant has been constructed by private parties at a cost of \$100,000.

The building permits for the past year amounted to \$322,814.

Contracts have recently been let for the construction of three brick and concrete business buildings to cost \$70,000.

Funds have been provided for improvement of the city parks, which extend along the lake shore, and these parks will be wonderfully improved within the next 12 months.

Funds have also been provided for a large amount of additional sidewalk and street paving, which work will be completed during the coming year.

The commerce of the port in the past fiscal year was: Exports, \$25,254,482; imports, \$2,284,104; coastwise, \$21,465,000; total, \$49,003,586, an increase over the preceding fiscal year of \$6,629,555.

## West Palm Beach Canal.

Outlining the latest status of the proposition to construct the West Palm Beach Canal, from Lake Worth to Lake Okeechobee, Johnson & Co. of Miami, Fla., write to the MANUFACTURERS RECORD as follows:

"This canal is 80 feet wide at the bottom and 115 feet wide at the top at its eastern end, narrowing down to 60 feet wide at the bottom and 90 feet at the top where it enters Lake Okeechobee. The depth of water will vary from 15 feet at Lake Clark and 9 feet at Lake Okeechobee during the normal stage of the water at Lake Okeechobee, but at the lowest level permissible at Lake Okeechobee the depth will still be 6 feet. We have taken the contract for the entire canal, which is estimated to be 7,600,000 cubic yards of excavation."

## Texas Building in November.

Building permits in the nine principal cities of Texas, population basis, during November, 1913, had an aggregate value of \$1,568,835, compared with \$1,461,869 for the same month a year previous. Dallas leads all other cities by more than \$650,000 in November, and Houston takes second rank, while Fort Worth is third. Dallas and Fort Worth are the only cities whose November permits show an increase over the previous month of this year.

Between 8000 and 10,000 boxes of Satsuma oranges and grapefruit will be shipped during the next few weeks from Ocean Springs, Miss., according to the monthly bulletin of the Association of Commerce of that place.



UNDEVELOPED FLUX LIMESTONE AT MARTINSBURG.

## Flux Limestone at Martinsburg

By G. P. GRIMSLEY, Mining Geologist.

In the smelting of iron ore, and in the conversion of pig-iron into steel in the open-hearth furnace, a flux must be used to aid in the fusion and to remove impurities. Crushed limestone has proved to be superior to all other materials for this purpose.

Iron ore as used today in the Pittsburgh district contains about 45 to 50 per cent. metallic iron, mixed with silica, alumina, phosphorus, etc., as impurities. The ore is practically infusible at any ordinary temperature, but when mixed with limestone in the blast furnace it is readily fused. The acid impurities of the ore unite with the basic lime and magnesia of the limestone, forming a fused slag which is drawn off, leaving the metallic iron, which is molded into pigs more or less free from impurities.

If the limestone flux used contains a considerable percentage of impurities itself, the stone adds to the burden of the work in the furnace. The efficiency of the limestone will be lowered in at least three important ways. First, a portion of the lime will be required to neutralize the silica and aluminum of the stone, so that more pounds of impure limestone are required than of pure rock. This involves a greater cost of stone to the charge. Second, the larger charge of limestone required involves more fuel, and thus a higher fuel cost to fuse this additional stone and slag. Third, there is involved a higher manufacturing cost through decreased output with use of lower grade limestone.

A limestone with over 4 per cent. silica is not desirable in the blast furnace, while in open-hearth steel work practically all contracts require the silica to run under 1 per cent. It requires 1000 to 1500 pounds of limestone flux to the ton of pig-iron made in the Pittsburgh district. In this district nearly 3,000,000 tons of limestone flux are used a year. The other Pennsylvania and Maryland furnaces use over 4,000,000 tons. Most of this stone comes from Pennsylvania, where the

freight distance from quarries is less than from Martinsburg, but this stone averages about 3 per cent. silica.

The three factors given above which lower the efficiency of an impure limestone as flux can be determined by mathematical calculation so as to prove in cents per ton the actual additional cost of using a 3 per cent. silica limestone over that of a 1 per cent. In the Pittsburgh district the use of the Martinsburg limestone in blast furnaces will save 6.6 cents per ton of stone over the use of the Pennsylvania 3 per cent. stone, and is therefore practically worth that much more per ton, though at present the cost to the furnaces is the same, except that certain companies quarry their own stone.

The influence of magnesia in the limestone on its fluxing value is a disputed subject among engineers. It is claimed by some that it has little or no value in removal of sulphur from the ore. It, however, has the same property as lime in combining with the silica of the ore, but to a slightly less degree. The proportion of magnesium carbonate in the limestone used in the Pittsburgh district is so small that its effects need not be considered.

In this country it is almost the universal practice to use raw limestone rather than the calcined. Theoretically, the calcined rock would be better, but practical tests show but little advantage and many disadvantages. The use of raw stone involves a large fuel loss which is at present impossible to offset. It is estimated that 1500 pounds of limestone through its content of carbonic acid will remove from the furnace 220 pounds of coke, but this loss appears to continue even when the stone is first calcined, and there is also a loss of the finely-divided lime in the strong air blast.

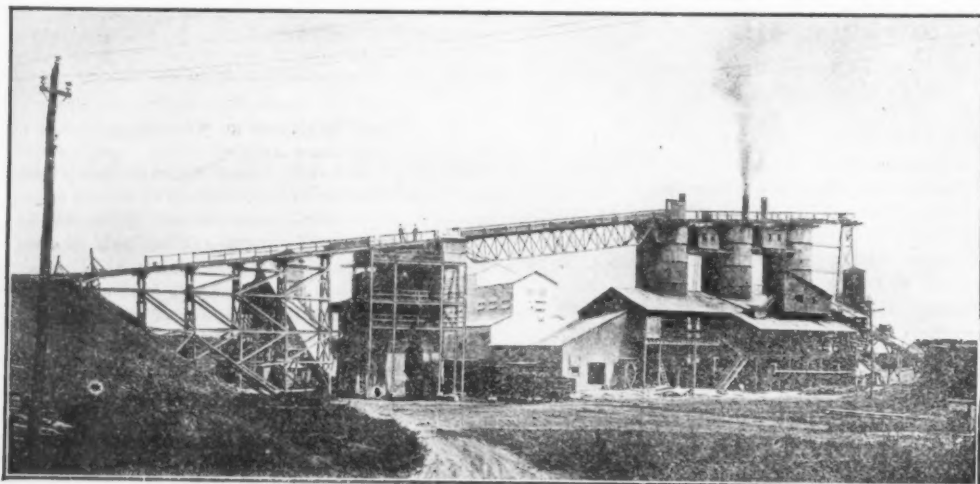
Low silica limestone is in demand in manufacture of open-hearth steel. Until the year 1890 practically all the steel in this country was made by the Bessemer

process, which requires no limestone. In 1890 two-thirds of the American steel was made by this process and one-third by open-hearth method. In 1907 the distribution was half and half, and at the present time the open-hearth production is almost double that of Bessemer. In this method 180 to 200 pounds of low-silica limestone are used to the ton of steel. In the territory reached from Martinsburg, under reasonable freight rates, nearly 9,000,000 tons of this steel are made, which would require 840,000 tons of limestone. The only source of this low-silica limestone for this territory, outside of the small Annville (Pa.) quarry and the larger Bellfonte quarry, is the Martinsburg district. Further, there would be a saving at many of the blast furnaces in using this same stone. There is thus available a large market for this high-grade stone.

In the crushing of this high-grade limestone for flux there is left a certain percentage of screenings, which by proper grinding and screening have double, and even triple, the value of the flux stone for glass making, fertilizer and road material.

In the Eastern Panhandle area of West Virginia, near Martinsburg, 75 miles west of Washington city, is a broad limestone valley famous for its fertility of soil, rich farms and large orchards. This limestone, known by the geologists as the Shenandoah Limestone, varies in color from a light gray through a dark blue to black. The upturned edges of this formation, running parallel in long lines, with a trend 25 to 30 degrees east of north, make a striking feature in the topography of the region.

Most of this limestone is more or less magnesian and high in silica, but here and there over a belt 24 miles long and of varying width to the north and south of Martinsburg are more or less lenticular-shaped deposits of the low-silica limestone. These lenses vary in width from a few feet up to 600, and in exceptional cases 800 feet. In length they seldom exceed one-half to a mile. The rock dips at high angle, and it is bordered by shales or a lower grade limestone. The stone has been drilled to a depth of 200 feet with diamond drill, and the bottom of the hole was still limestone. The silica increases somewhat with depth, but in the bore holes examined the silica was below 1 per cent. to depth of 130 feet. The lenses in some cases pinch out in width to the north and south; in other lenses the stone dips under heavy cover of other stone and disappears to north or south, or both. A few of the belts have been traced with a length of two miles without a break. The high-grade deposits are approximately parallel and appear in this district to lie in four different belts. One belt is found 10 miles south of Martinsburg at Bunker Hill, and continues north to Darkesville, five miles, and is found in the quarries west of the town of Martinsburg. A second belt is found in the quarries south of the town, thence north by the Security quarries to the river west of Pinesburg, Md. A third belt is found three miles east of the town, and follows north to east of Falling Waters on the river. The fourth, farther east, does not show large deposits until the Potomac River is reached at the north. This belt has not yet been opened, but gives promise of good future quarries. The different belts are not continuous on the surface, but dip down below the more impure rock for quite a distance, then come to the surface again.



SECURITY CEMENT &amp; LIME CO.'S PLANT USING MARTINSBURG LIMESTONE.



In these belts are found a series of parallel high-grade ledges separated by other limestone, and they represent folds of the same stratum with the tops of the folds eroded away. This feature is well shown in the tracts south and east of Martinsburg. This parallel arrangement of high-grade ledges and the large tonnage available are unique in the limestone fields of this country and render the district an ideal location for the quarry industry of high-grade flux stone. The industry is really in its infancy as far as development is concerned. There are as large and valuable deposits today on the market at reasonable prices as have already been opened by existing companies. The development of this fluxing industry in this section will be very rapid in the next few years and affords a promising field for profitable investments. Two steel companies now own tracts of this limestone, but have not opened them. Another steel company is operating quarries, and still another is making preparations to operate on a large scale. Representatives of other steel companies are looking over the field.

Since not all the stone in this area is high grade, it becomes very important in locating sites for plants to secure a sufficient acreage of the good stone. This involves very careful prospect work, followed by thorough testing of the formation. Recent work has extended the field in two separate areas over into Maryland, but the good stone apparently disappears a short distance north of the river. It is a restricted area of about 25 miles length by 5 miles width, but with a very large tonnage, and is a valuable asset in the State's mineral wealth. From this district at the present time about 1,000,000 tons of flux are shipped annually. The district is reached by three railroads—the Baltimore & Ohio, the Cumberland Valley division of the Pennsylvania system, and at the north by the Western Maryland. The distance to Pittsburgh is 230 miles, to Harrisburg 96, to Baltimore 100 miles. Electric power at low price and generated by water-power on the Potomac and Shenandoah rivers is available from two power companies. Another favorable factor is the good car supply and low freight rates west on account of the empty coal cars returning through Martinsburg to the Western coal fields.

Five companies are now operating in the field, and they control extensive and valuable deposits. The pioneer in the industry was Mr. Daniel Baker of Baltimore, who opened his first quarry south of the town 20 years ago, and who today, through his organization, the Standard Lime & Stone Co., ships the largest tonnage of any company in the field, practically all the product going to the Pittsburgh district. This company now operates quarries in several other States and a number at other places in this State. At Martinsburg they operate the south and west quarries in high-grade limestone. The openings are 40 to 80 feet deep, and their area is nearly 400 acres south and 50 acres west of the town, with other tracts not yet opened, making a total acreage of 1000. The capacity is 3500 tons daily of high-grade stone. They also operate a mill for fine grinding of the stone for the glass factories and for fertilizer with a daily capacity of 200 tons. This is the only plant in the area engaged in this by-product manufacture. While the same company is a large producer of lime in its other plants, it only makes a small quantity at its plant west of the town.

The National Limestone Co. plant and quarries adjoin the Baker property south of the town on the east side. It is engaged in the production of flux stone only at the present time. Its plant, the last one built in the field, is one of the most modern plants in the country and was described in the MANUFACTURERS RECORD a year ago.

At Bunker Hill, 10 miles south of the town, on the Cumberland Valley Railroad, is the plant of J. E. Baker, which ships flux stone to Harrisburg and Baltimore. The company controls a large lime industry at York, Pa.

Four miles north of Martinsburg is the plant of the Security Lime & Cement Co. Its cement plant is near Hagerstown, Md., and at its Martinsburg plant it ships a considerable tonnage of flux stone and ballast, but its main output is lime from one of the most modern lime plants in the country. The stone is burned in three large steel kilns fired with producer gas and equipped with various labor-saving appliances. It also operates here a complete lime-hydrating plant, the product sold under the name of Berkeley hydrate. Its large crushing plant is equipped with an extra size crusher, conveyors and screens and large storage tanks for finished

product. Each year seems to record a marked increase in the output of this plant, and proves that this limestone makes a valuable lime. It is the only company in the district making a specialty of lime for the general market.

Three miles east of Martinsburg is the plant of the Blair Limestone Co., associated with the Jones & Laughlin Steel Co. It controls an acreage of 550, with several belts of high-grade stone. It operates 19 modern kilns of a daily capacity each of 13 to 15 tons. It is shipping flux stone and lime to the Jones & Laughlin furnaces in the Pittsburgh district.

The Pittsburgh Limestone Co., owned in large part by the Carnegie Steel Co., has opened a quarry on the

bank of the Potomac River, where there is a vertical bluff of the high-grade stone, about 14 miles north of Martinsburg. The branch of the Western Maryland Railroad to this quarry is not yet completed. It plans an operation at this point which will give an annual output of 1,000,000 tons.

From this review of the industry at Martinsburg it is seen that the output is already large, but not in proportion to the amount of flux stone used in the territory that can be reached. The prophecy, based on profits in the past industry and the amount of stone yet undeveloped, is that Martinsburg will in a few years be one of the most important flux limestone centers in the country.

## For Industrial Expansion at Canton

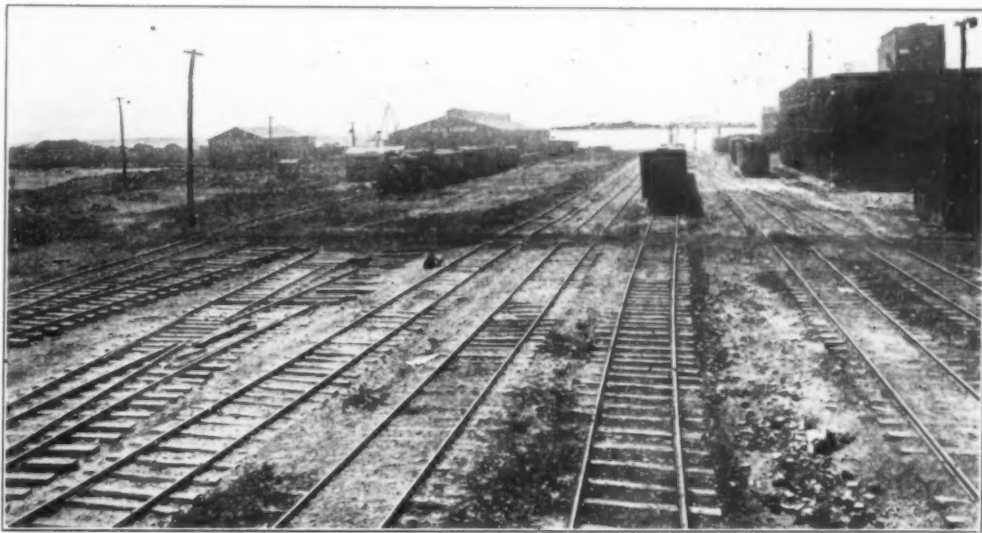
Among the big things under way in the Baltimore district, looking to its broader industrial expansion, the work of the Canton Company in developing its properties for new industries is especially noteworthy. These improvements involve an initial outlay of over \$500,000. They include the building of bulkheads along a mile stretch of its waterfront, several large piers, dredging the harbor adjacent to the bulkheads and piers to a depth of 30 feet, erecting a new six-story fireproof storage warehouse; filling in, by the hydraulic method, of 160 acres of land with material dredged from the harbor, and considerably extending the trackage of the Canton Railroad. All of this work, which is being pushed with great rapidity, is being done, not for any industries that have already been secured at Canton, but because the officials of the company are firm in their conviction as to Baltimore's future industrial growth and in the peculiar fitness and complete adaptability of Canton for factories.

That Baltimore is on the verge of the greatest industrial and commercial expansion in its history is the

of the South, and as such shares in the wonderful and remarkable progress in general wealth and development which that section is making. And, most important of all, it has an abundance of room for expansion industrially, especially along its waterfront, where hundreds of acres are available located directly on deep water and also with all needed railroad facilities.

Baltimore's growth has always been a steadily increasing one in population, in wealth, in manufactures and in general business expansion—the kind of growth that is permanent and lasting, ever making for solid, substantial progress.

With detailed facts and statistics regarding these general statements before him, and with all similar data regarding other cities, there can be no question in the analyst's mind that Baltimore offers greater opportunity for industrial and commercial expansion than any other city on the Atlantic seaboard. It was unquestionably with these fundamental facts in mind regarding Baltimore that caused the various railroads entering the city to spend large sums for improvements



CANTON RAILROAD YARDS, STORAGE WAREHOUSES AND CAR BARGE TRANSFER. HARBOR IN BACKGROUND.

confirmed opinion of everyone who studies and analyzes the many factors which influence and determine the future growth of important centers of trade.

Baltimore is admirably located in reference to an extraordinarily wide range of raw materials for varied manufacture. It is but a few miles from the finest coal areas, both bituminous and anthracite, in America. It has an abundance of hydro-electric energy, developed at McCall's Ferry, and sold at rates claimed as the lowest obtainable on the Atlantic seaboard.

Baltimore has very complete transportation facilities, both by rail and water, for quickly reaching all big trade centers, not only of this country, but of the whole world. And a most important factor, it has lower freight rates on commodities to and from the West than any other city on the Atlantic coast, which gives it a commanding and preferential position for export and import trade.

The substantiality and progressiveness of its people is reflected in the expenditure of many millions of dollars in the last 10 years in providing the most modern sanitary sewerage systems in the world, a high-pressure pipe-line system for fire protection, modern paving, new docks, and general public improvements and betterments.

Baltimore is the financial and commercial metropolis

in recent years and the plans they now have underway to expend many more millions for betterments that will enable them to adequately handle the rapidly increasing traffic being developed in this city and section.

These very same reasons were back of the expenditure of \$500,000 which the Canton Company is now making in the improvement of its properties.

For a mile of waterfront the Canton Company is building a bulkhead, and the ground behind the bulkhead is being filled up and made level by the material dredged from the harbor, in order to deepen the channel. This is accomplished by powerful hydraulic dredges, which pump the sand and mud from the river and force them through a big steel pipe line which extends from the dredge to place to be filled in. This method is a very effective and economical way in which to fill the low-lying swampy sections, because when the water drains off the new land is hard and compact and excellently suited for industrial plants. There are 160 acres of this filled land. It lies perfectly level and is adjacent to deep water, and the tracks of the Canton Railroad extend through it, so that it offers very desirable sites for factories.

The Canton Company found that some few years ago there was a growing need for storage facilities at Canton, as many of the industries, especially the canning



BALTIMORE COPPER SMELTING &amp; ROLLING CO.'S PLANT AT CANTON. LARGEST COPPER REFINERY IN AMERICA.

and fertilizer plants, during their busy seasons had not the facilities for storing their output where it would be convenient for ready shipment. Realizing that it had the ideal advantages for storage warehouses right on its waterfront property, where manufactured goods could be conveniently stored and quickly shipped either by rail or water, and in order to give Canton manufacturers every facility possible, the Canton Company erected two large storage warehouses. These are located directly on the water, with railroad tracks and loading platforms. They were quickly filled to capacity, and proved so advantageous that the company is now erecting an additional six-story warehouse of fireproof construction. This building will be modern in every particular, and will contain passenger and freight elevators, power plant and complete facilities for both storage and manufacture. This big warehouse is located directly at the foot of the new concrete pier the company is also building, so that it will have railroad tracks on one side and water on the other, thus minimizing the cost of handling materials that will be stored here.

This pier will be 1000 feet long and 150 feet wide, and will have a one-story steel superstructure. The docks adjacent to the pier and warehouse will be dredged to a sufficient depth to accommodate vessels of the largest tonnage.

Canton lies just outside of the city limits of Baltimore, but one unfamiliar with its exact location cannot tell where the city ends and Canton begins; consequently business houses, as well as those living in Canton, enjoy all the privileges of city life and conveniences in the way of street-car lines, telephone, electric light, gas, etc.

Canton is not a new development by any means. It has always been a most important section of the industrial Baltimore district. Many big industries have been thriving there for years. The Pennsylvania Railroad has long had its big terminals, grain elevators, coal piers and storage warehouses at Canton for foreign and coastwise shipment, and it has only recently added 60 more acres to its holdings. Here, too, are most of Baltimore's big fruit, vegetable and oyster canning and packing plants, which have carried the fame of Baltimore throughout this and foreign lands.

Baltimore is noted as the largest fertilizer manufacturing center in the country. Most of the fertilizer plants in Baltimore are at Canton. The largest copper-refining plant in America is here, that of the Guggenheims, known as the Baltimore Copper Smelting & Rolling Co. One of the enormous plants of the Crown Cork & Seal Co. is at Canton. This plant makes the small metal bottle caps that are used in all parts of the world.

In addition to these several notable industries, there are a large number of factories making a wide range of products who were attracted to Canton by reason of its complete advantages for manufacture and distribution.

Canton is largely owned and has been developed by the Canton Company. Its holdings altogether aggregate about 1800 acres, and although many important industries have been established here for years and others continually being added, there is a large acreage still available as sites for new plants.

The Canton Railroad, which is owned and operated by the Canton Company, is a belt line which extends

throughout all parts of the company's properties. The Canton Railroad places sidings at all plants locating here, and also directly connects with all the various railroads entering the city and with the piers for coastwise and foreign shipment. No switching charges are made to plants situated on the Canton Railroad, so that a manufacturer with a plant on this railroad in any part of Canton has the advantage of being located on every railroad entering the city and on the waterfront as well, and he has the added advantage of getting the flat Baltimore rate on all incoming and outgoing shipments. The importance of this fact for the receipt of raw materials and the distribution of finished goods cannot be overestimated or too strongly emphasized.

Then, too, it allows a manufacturer who cannot afford to locate his plant on higher-priced property directly on the waterfront to go farther inland on portions of the property where the prices are lower and still have the advantage of the services given by the Canton Railroad.

The Pennsylvania Railroad, as previously pointed out, has a very extensive trackage at Canton, with sidings into many of the plants there, and the Baltimore & Ohio Railroad also has a line which extends through various sections of Canton, and these two big important trunk-line systems greatly add to the transportation advantages here, and at the same time make it possible to freight shipments to be quickly handled.

The Canton Company also has a special wharf for loading cars on barges to be transported to other parts of the harbor either for transfer to railroads across the harbor or to be placed alongside freight steamers to allow goods to be unloaded directly from the car to the steamer.

The ready facilities for receiving necessary raw material and distributing finished products are strikingly

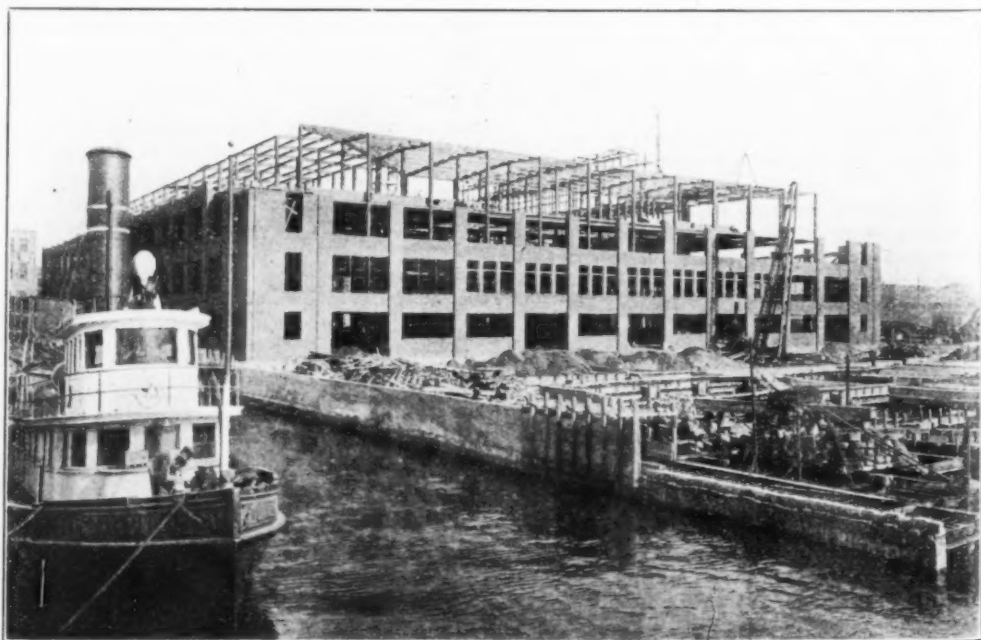
illustrated by plants directly on the waterfront, where vessels can dock right at the doors of the plant, while on the land side the railroad tracks provide equal advantages for rail shipment. This is typical of the facilities that many plants have at Canton, and there are available many desirable sites similarly located and which tend to completely solve the transportation problem which so often is a vexatious one to manufacturers, causing them great inconvenience and expense.

Electric street-car lines from the city also pass through this property at various places, the fare from the city being five cents, thus enabling workmen to quickly and cheaply reach their places of employment, and enables those in Canton to draw upon Baltimore for all classes of workmen, both skilled and unskilled.

Very attractive workmen's homes are available in Canton. Most of them are owned by the workmen themselves. They buy them through building and loan associations, and it is stated that a workman can begin the purchase of his home with the payment of \$5, and by a small payment each week can completely pay for his house within a 10-year period. This feature has proven very attractive and valuable to industries at Canton, as it has tended to draw and hold here workmen of the best type.

A very interesting plant now being rapidly completed in Canton is that of the Tin Decorating Co., which will manufacture lithographed tin boxes for tobacco. This company is the outgrowth of a branch which was formerly run by the American Tobacco Co., but is now a distinct corporation capitalized at \$2,000,000.

The plant, which is shown in the accompanying illustration, is of steel and brick construction, with foundations of reinforced concrete. It is located directly on the water, and has a reinforced concrete pier, which was built by the Sanford & Brooks Company of Baltimore.



FOUR STORY PLANT, UNDER CONSTRUCTION, OF THE TIN DECORATING CO. CONVENIENT TO RAIL AND WATER TRANSPORTATION.



The building covers an area 275x300 feet, and is four stories in height, giving it a total floor area of seven acres and making it one of the largest industries in the Baltimore district. The building will be equipped with every modern convenience, including complete power plant, three large elevators of the plunger type, electric conveyances, sprinkler system, steam heat and electric lighting. Its lithographing department will include 35 presses, which is said to be the largest number operated by any single manufacturer in the country. The plant will employ from 1200 to 1400 hands, and the value of its products will amount to \$3,000,000 annually. It will consume 500,000 base boxes of tinplate yearly, and incoming shipments will run from 30 to 35 cars a month, while outbound shipments of finished product will run from two to seven cars daily.

The products of this plant are shipped to all points in this country, as well as to foreign countries.

The architect for the plant was Theodore Wells Pietsch of Baltimore, and the contractors Irwin & Leighton of Philadelphia and Baltimore.

The construction of this big plant in Canton is a striking evidence of the facilities which Canton offers for manufacturing.

The Canton Company has several plans under which manufacturers can locate here. If desired, it will sell the land outright to those who want to own their own property, or it will erect factories complete in every detail and lease them at reasonable rates. Quite a number of manufacturers at Canton who do not desire to carry a large investment in buildings and lands make arrangements of this kind, and the writer talked with a number of those who lease plants from the Canton Company and in every case found they were very well pleased with the arrangements, and that whenever additions or repairs were necessary they were quickly provided and every co-operation and facility given to enable tenants to conduct their business economically and profitably.

### The Birmingham Iron Market.

[Special Correspondence Manufacturers Record.]

Birmingham, Ala., December 6.

The pig-iron market for the past week has shown little change, all prices have been maintained, and no iron has sold for less than \$11 to \$11.50, except one order for special analysis from that did not grade as high as No. 2 foundry and better than No. 3 foundry. This order was purchased at \$10.50. It has been impossible to secure the tonnage for the week, as men in a position to give out the figures are in the East, and no one was authorized to state the quantity of iron sold, but is believed to be less than the week before, when approximately 9000 tons were sold.

Rumors are persistent that two, and probably three, furnaces in the Birmingham district will be blown in by January 1, but no one will make the definite statement. It is stated on good authority that one furnace at Bessemer, one in Birmingham and one at Gadsden will soon be at work after a long shutdown. Local interests have purchased iron this week in small quantities at the prices quoted. The following prices still prevail in Birmingham f. o. b.:

No. 1 foundry iron, \$11.50 to \$12.  
No. 2 foundry iron, \$11 to \$11.50.  
No. 3 foundry iron, \$10.50 to \$11.  
No. 4 foundry iron, \$10.25 to \$10.50.  
Gray forge, \$9.75 to \$10.  
Mottled, \$9.25.  
Standard basic, \$11 to \$11.50.  
Off basic, \$10.50 to \$11.

Scrap-iron dealers report a quiet market, good receipts, few sales and prices the same as last week. The prices f. o. b. Birmingham are as follows:

Old iron axles, small, \$15 to \$15.50.  
Old steel axles, light, \$15 to \$15.50.  
Old iron rails, \$12.50 to \$13.50.  
No. 1 railroad wrought, \$12 to \$12.50.  
No. 2 railroad wrought, \$10 to \$10.50.  
No. 1 country wrought, \$9.50 to \$10.  
No. 2 machinery cast, \$10.50 to \$11.  
No. 1 steel scrap, \$10.50 to \$11.  
Tram car wheels, \$10.50 to \$11.  
Standard car wheels, \$12 to \$12.50.  
Light cast and stove plates, \$9 to \$9.50.

The quantity of iron on the yards is the same as last week, the interests having sold as fast as made. One interest during the week purchased 100 tons of charcoal iron at \$25 per ton.

There is no change in conditions in pipe sales and

orders in the district several of the plants having reduced their forces, and orders are slow coming in. The cast-iron pipe concerns show a remarkably quiet business for this season of the year, and no one can explain why there is such a slow demand. Soil-pipe companies are having plenty of orders and are working on full time. Foundries are up to the usual December business and a number of good orders have been booked for the rest of the year.

The reported purchase of 29,000 tons of steel rails by the Southern Pacific Railroad for delivery during the first half of 1914 by the Ensley Steel Mill will make that plant have steady work for several months, as the order for 48,000 tons by the Louisville & Nashville will make the plant run on full time after the first of the year. Many small orders are also coming in that will add to the tonnage of the mill. It is further announced that the steel and wire mill at Fairfield will be ready for full operations by January 1, and this plant will utilize 1000 tons of billets a day. The plant is now testing its machinery and will be in full operation by the first of the year.

As announced, the Alabama Great Southern Railroad has voted \$25,000,000 of bonds to double-track the system from Meridian, Miss., to Chattanooga, and it is stated that the work is to commence at once. An effort will be made by the Chamber of Commerce of Gadsden to divert the new line from the main line through the city, placing it on a trunk line, but so far as learned it is the intention of the company to parallel its tracks all the way through the State.

At a meeting of the City Council of Bessemer, held this week, it was decided to make a revaluation of the real estate of the city, the assessed valuation at this time being nearly \$4,000,000, with a bonded indebtedness of \$335,000. The city is anxious to vote \$30,000 worth of bonds for school improvements, and a new valuation will be necessary to permit the bonds to be floated.

Morris Adler, president of the Bessemer Water-Works Co., has proposed to sell to the city of Bessemer his water-works plant, and a committee has been named from the City Council to confer with him as to price, terms, etc. Some years ago an effort was made by the city to purchase the water-works, but a satisfactory price could not be agreed upon at that time. Mr. Adler now proposes to assist the city in selling the bonds, guaranteeing an income enough to pay interest on the bonds, operate the plant and still make a reduction on water rates of 25 per cent.

November business was exceptionally good in the district, and while some interests reduced their forces and orders were not as heavy as the previous month, the reductions have not affected the output of mines and furnaces. December business has opened bright, and there are indications that all industries will complete the year with excellent records.

From reports already received the output of pig-iron for the year 1913 will break the 1912 record by 150,000 tons. It is estimated that the production for the year will be 2,018,032 tons, as compared with 1,823,256 tons in 1912, the estimate for the month of December to make up the totals being the lightest in the year and still a large increase over the year before.

A strong delegation of prominent men of Birmingham held a conference with Governor O'Neal during the week looking to a call of an extra session of the Legislature to consider very important matters. The Governor gave no answer, but stated that he would carefully consider the request and make his decision later. Financial stress of the city of Birmingham and the fee system in Jefferson county formed the burden of the appeal made by the large committee of representative men. The statement was made that Birmingham was now in debt to the sum of \$750,000, and this sum would be increased to more than \$1,000,000, and that the banks would not be able to carry this indebtedness, forcing the city to go on a script basis. It is probable that the Governor will give an answer to the appeal within the next week.

### Camp Glass Works Completed.

Referring to its new works at Huntington, W. Va., the Camp Glass Co. writes to the MANUFACTURERS RECORD as follows:

"Our 60 blower capacity window-glass plant is about completed. Our tank building is 90x160, with a 90x80 wing and a 40x80 material-house. The flattening-house and cutting-room is about 200x250 feet, practically five buildings, but all joined together. The work was mostly done by ourselves, although part of it was contract

work. E. K. Hibbs of Columbus, O., did the reinforced concrete work. H. R. Heinicke erected the chimney. The capacity of the plant will be two carloads of window glass per day. The number of men employed will be about 300."

### Altitudes in West Virginia.

Engineers and surveyors who need to have accurately determined points from which to start surveys of any kind find the spirit-leveling bulletins published by the United States Geological Survey of considerable value. These bulletins contain the results of spirit leveling in all parts of the country, and give the exact elevations or altitudes of a great number of points. In 1909 and 1910 the Geological Survey, in co-operation with the State of West Virginia, established more than 500 datum points in that State, the work being done under the direction of R. B. Marshall, chief geographer of the Geological Survey. Bulletin 477—"Results of Spirit Leveling in West Virginia"—gives a list of the exact elevations above mean sea level of these points determined in connection with the topographic mapping of the Survey, in addition to some 300 or more points fixed by the Coast and Geodetic Survey and the Baltimore & Ohio Railroad. While the Survey's published maps show the elevations of points within the area indicated, these elevations are merely approximate, whereas the elevations listed in the bulletin are given to the thousandth of a foot. Engineers and others who have occasion to use the bench-mark elevations should have a copy of the spirit-leveling bulletin for reference. It is available for free distribution and may be had on application to the Director of the Geological Survey at Washington, D. C.

### Marine Railway for Government.

Major C. Keller, United States Engineer Office, Mobile, Ala., writes to the MANUFACTURERS RECORD as follows:

"Preparations are in progress looking to the construction of a marine railway on the United States Reservation at Pascagoula, Miss. This site is located on the west bank of the Pascagoula River, opposite the town of Pascagoula, and just above the Louisville & Nashville Railroad. It is the intention to construct at this place a marine railway having sufficient capacity to dock any of the dredges or other Government plant in this district. The largest boat to be docked has a displacement of about 800 tons."

The Philadelphia-New Orleans Transportation Co., it is announced, has placed in service three new freight ships on its line, connecting Philadelphia, Charleston and New Orleans. These steamers, which are exactly similar, have each a carrying capacity of about 4000 tons and are named, respectively, Robert M. Thompson, Ruby and A. A. Raven. It is further stated that G. B. Dowdy has resigned as traffic manager, and A. L. Lane, general freight agent, will handle all matters pertaining to traffic.

As a means of assembling the thought of chiefs of fire departments and engineers in different parts of the country, to the end that greater efficiency in safeguarding public property may be subserved, Mr. Goodwin Lee has begun publication in New York of the Fire Engineer, a monthly magazine devoted to every phase of fire hazard.

According to estimates of the Chamber of Commerce of San Antonio, Tex., that city and Bexar county will spend within the next three years \$20,361,000 upon improvements already definitely determined upon, and including \$6,486,000 for widening and improving of streets.

Commissioner of Agriculture Graham of North Carolina estimates that the crops of North Carolina in 1913 had a value of \$232,082,199.

In six days last week Tampa shipped 8,020,000 cigars.

## GOOD ROADS

### WEEK'S HIGHWAY RECORD.

#### Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

##### Bonds Voted.

Belton, Tex.—Road District No. 2, Bell county, voted \$50,000 bonds to construct roads.

Bradentown, Fla.—City voted \$95,000 bonds for improvements, to include street and sidewalk paving.

Centerville, Tex.—Leon county will issue \$50,000 road bonds.

Fairfax, Va.—Fairfax county voted \$90,000 bonds to construct roads.

Granite Falls, N. C.—Lovelady township of Caldwell voted \$25,000 bonds to construct roads.

New Albany, Miss.—City voted \$35,000 bonds to improve streets, etc.

Passagrille, Fla.—Town voted \$2000 bonds for street and alley improvements.

Port St. Joe, Fla.—City voted \$10,000 bonds to pave streets.

Strawn, Tex.—Strawn District of Palo Pinto county voted \$50,000 bonds to construct roads.

##### Bonds to Be Voted.

Alpine, Tex.—Brewster county votes December 20 on \$80,000 bonds to construct roads.

Meridian, Miss.—Lauderdale county will vote on \$25,000 bonds for road improvements.

Sarasota, Fla.—Manatee county votes January 12 on \$425,000 bonds for road construction, etc.

##### Contracts Awarded.

Columbia, S. C.—City awarded \$16,349 contract for street improvements.

Columbia, La.—State awarded \$20,222 contract for Rayville highway.

Donaldsonville, La.—Ascension Parish Police Jury awarded contract to construct 22 miles of gravel roads.

Groesbeck, Tex.—Limestone county awarded contract to construct 55 miles of road.

Lafayette, La.—State awarded \$47,813 contract for road construction.

Plant City, Fla.—Greene Realty Co. awarded contract for 6000 square feet of concrete sidewalks.

Tampa, Fla.—City awarded contracts for 25,422 square yards of street paving.

Tulsa, Okla.—City awarded contract to construct 20,000 square yards paving and 8000 square feet of walks.

##### Contracts to Be Awarded.

Baton Rouge, La.—State invites bids to construct 14 miles of highway.

Cleveland, Tenn.—Bradley county will improve roads; appropriated \$100,000.

Hendersonville, N. C.—City receives bids until December 18 to construct 20,000 yards paving, 10,000 linear feet curbing, etc.

Mexia, Tex.—City receives bids until January 1 for street paving; \$80,000 expenditure.

St. Petersburg, Fla.—Pinellas county will invite bids for about two miles of brick paving.

Winston-Salem, N. C.—Forsythe county will expend \$80,000 for road improvements, etc.

### TWENTY-SIX STEEL BRIDGES.

#### Features of Road Improvement in One Mississippi County.

[Special Correspondence Manufacturers Record.]

Pascagoula, Miss., December 4.

The Board of Supervisors of Jackson County were in session this week, and prior to their adjournment issued proposals for 26 new steel bridges to be built in various parts of the county, the contract for which will be let

on the first Monday of January, 1914. Road District No. 5, which is the most northern district of the county, asked for \$3000 of 6 per cent. road bonds, which will also be issued in January, while Road District No. 2 wants 1000 tons of clay to be delivered in Moss Point, and which is to be used as binder upon their roads. These items are significant, as they show that the good-roads fever is contagious and is rapidly becoming an epidemic.

The report of Road District No. 3 shows that it has during the month of November cut out and graded with the new motor road-making machine 21 miles of road at a cost of \$440, of which amount \$110 was for the making of a fill one-half mile long, thus making the average cost per mile of about \$18. These roads will be covered with slag and a binder of clay as soon as practicable. Only a few weeks ago, while cutting out a new road in district No. 3, the workmen cut through a deposit of clay that is nearly one-half mile wide; its depth and length are unknown. This deposit of clay bed is near Orange Grove, and within a few hundred yards of the Louisville & Nashville Railroad, and is not only valuable for roads, but also for the making of brick, pottery and aluminum. This district has now at hand all the clay that it will ever need.

Road District No. 3 on December 2 began the work of constructing a new speedway from Laine to the paper mill, a distance of one mile, and it will be about one-fourth of a mile east of the slag road, which it has already built to that point. The first road is only 20 feet wide, and runs alongside of the Louisville & Nashville Railroad spur track to the paper mill, and for that reason a new and more commodious road is being built. This district during the month of November has been very fortunate in having uninterrupted sunshine for its work, and the men on the work were willing to work overtime in order to push forward their work as much as possible while there was good weather. The commissioners are trying to complete their chain of roads from the Alabama line to the Pascagoula River in as short a time as possible, and are meeting with great encouragement. Owners of land along the lines of contemplated routes are coming forward and offering the right of way free of cost, and today one landowner offered to the commission a right of way through his land from the Louisville & Nashville Railroad to the Gulf shore, a distance of three miles, the right of way to be 100 feet wide, or wider, if desired. A public road through this land would open for settlement one of the most attractive sections on the Gulf coast, and the road will be built as soon as possible.

As soon as the commissioners for district No. 3 have finished their present system of roads it must take up the problem of carrying their line across the Pascagoula River. Between the East and West Pascagoula rivers there is an extent of salt marsh three miles wide, and a careful calculation shows that a fill 12 feet high and 60 feet wide, by the use of clamshell dredges, can be made for \$40,000, and steel bridges over the two rivers with one draw over the East Pascagoula will cost approximately \$150,000, and may be a toll bridge. When this work is done there will be an uninterrupted speedway from Mobile to Gulfport, as district No. 4, which lies on the west side of the West Pascagoula River, is working vigorously to complete its chain of roads so as to meet district No. 3 at Gautier, or West Pascagoula.

The Louisville & Nashville Railroad is gathering material for a new and handsome passenger depot at Laine. This will be the first depot built there, as the town is only two years old. CHAS. E. CHIDSEY.

### A 700-MILE DEMONSTRATION.

#### To Maintain a Highway from Washington to Atlanta.

In order to demonstrate the value of practical maintenance of highways, the American Highway Association has arranged, in co-operation with the Federal Office of Public Roads and road officials in Virginia, North Carolina, South Carolina and Georgia, for an ambitious maintenance experiment on the road from Washington to Atlanta, Ga. More than 700 miles of road are expected to be improved and kept in condition as a result of the initiative of the American Highway Association. The experiment is on a larger scale than any maintenance experiment ever undertaken in this country.

The great maintenance object-lesson road extends

from the capital of the United States through a very historic section of the country, passing such famous points as Arlington, Mt. Vernon, the battlefields of Bull Run, Chancellorsville, Spottsylvania and Fredericksburg, en route to Richmond; thence extending southward through the capitals of North Carolina and South Carolina, and terminating at Atlanta.

The American Highway Association will enlist the support of the counties and districts traversed by the road, and, wherever possible, induce the local authorities to place the road under the supervision of Government engineers, who will be detailed from the Office of Public Roads for that purpose under the co-operative arrangement.

Probably 75 per cent. of the total mileage has already been improved by a surfacing of stone, gravel or a mixture of sand and clay. The object of the maintenance scheme is to prevent the improved portions of the road from deteriorating for lack of suitable care, and to make the unimproved portions as comfortable for travel as possible with the money available.

With the co-operation of all different communities, however, it is hoped that concerted work will be undertaken on the entire stretch of highway, resulting in a continuous maintenance object-lesson that will be a stimulus to maintenance throughout the country. The American Highway Association has undertaken to raise the money for the traveling expenses of the engineers who will supervise the work.

Leonard Tufts is chairman of the committee designated by the association to have charge of the campaign, and he has already arranged to place 110 miles under Government engineers. It is expected that all counties traversed by the road will cheerfully enter into the arrangement, as it is a long step toward a continuous stretch of road that will benefit the entire seaboard.

### American Road Builders.

In connection with the tenth annual convention of the American Road Builders' Association in Philadelphia this week is held an exhibition of road-making machinery, materials and methods participating in which, in addition to commercial exhibitors, are the States of Massachusetts, New York, Rhode Island, New Jersey, Washington and North Carolina; the University of Pennsylvania, Rensselaer Polytechnic Institute and Columbia University, the boroughs of Manhattan, Bronx, Brooklyn, Queens and Richmond, New York city and the city of Philadelphia.

### Will Work for Good Roads.

Fairfax Harrison, who succeeded the late W. W. Finley as president of the Southern Railway Co., has been elected to succeed Mr. Finley as vice-president of the American Highway Association and as a member of the executive committee. Mr. Harrison in accepting the position stated that he intends to carry on the work for improving highways in the South through the association as his predecessor had done. It is likely that the executive committee will elect Mr. Harrison chairman of that body.

### Santa Fe Betterments.

The Santa Fe System, according to a report from New Orleans, is making considerable improvements on its line between Anchorage and De Quincy, La., bringing it up to standard. More than 500 men are employed on the task, which includes rebalasting and otherwise bettering the track, erecting steel and concrete bridges and concrete culverts over 130 miles of railroad. Furthermore, between De Quincy, La., and Houston, Tex., 90-pound rails are being laid and the line is being rebalasted and revised. These improvements have been made necessary by increasing traffic.

Between 1904 and 1912 expenditures for road improvement in the United States increased from \$79,771,417 to \$164,232,265.

Assessed value of property in Texas this year is \$2,679,641,350, an increase over last year of \$146,931,300.



## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### HAD GOOD RAILROAD YEAR.

#### Missouri, Kansas & Texas Breaks Its Records. Improvements in Progress Over System.

Gross and net earnings were the largest in the history of the company, according to the annual report of the Missouri, Kansas & Texas Railway for the fiscal year ended June 30, 1913, and the surplus, after payment of all charges, was larger than in any year excepting 1907. Improved business conditions generally in the Southwest and increased passenger travel contributed to swell the revenue, while favorable operating conditions during the year enabled the traffic to be handled with a relatively small increase in operating expenses. The ratio of expenses to gross earnings was 70.51 per cent., as compared with 75.23 per cent. last year.

These pleasing announcements are followed by considerable data about the improvements which have been made. It is said that the double-track work between Waco and Hewitt, Tex., about seven and one-half miles, which will facilitate the movement of trains, has been completed since the end of the year, and a new passenger station is under construction at Houston, where the municipality has recently constructed a viaduct over the company's tracks near the new depot for the purpose of conveniently connecting the northern and southern sides of the city. New stations have also been erected at a number of smaller points. Extensive changes are being made in the freight station at St. Louis which, it is said, should result in a considerable reduction in the cost of handling freight there. At Dallas, Tex., a new general office building has been acquired. In the same city the Union Terminal Co., organized last year, has made good progress in acquiring land and franchises for a new passenger terminal, and plans are now being prepared for the building and the track layout. At Kansas City work on the new union station has been delayed by strikes and other impediments, but it should be finished and ready for service in this fiscal year. Growing traffic at several other important terminal points has rendered facilities there inadequate, and it will soon be necessary to make enlargements and improvements.

Concerning the acquisition of the Beaumont & Great Northern Railroad, the report says there is a considerable movement of tonnage from this line, but that the full benefits therefrom will not be derived until a connection with the main line has been constructed, after which the mileage and the operation of the line will be included in the annual reports of the system. This would require the building of an extension from Weldon, probably to Waco, about 100 miles, or about twice as long as the acquired road.

The Missouri, Kansas & Texas also purchased during the year one-half of the stock of the Houston & Brazos Valley Railway, operating about 24 miles of line from Anchor to Velasco and Freeport, Tex. The other half is owned by a syndicate of bankers who are developing Freeport, investing largely there, especially in a plant for the production of sulphur, of which large deposits were discovered nearby. It is further stated that the syndicate has planned important industrial developments at Freeport, and, in addition to the traffic incident thereto and the sulphur tonnage, a substantial interchange of traffic with steamship lines is expected eventually to develop. The Seaboard & Gulf Steamship Co. is operating a semi-monthly service between New York and Freeport, and this transaction has also resulted in the acquisition by the Brazos Warehouse Co. (the capital stock of which is owned by the company) of 634 acres of land on the river front at Freeport.

On the railway system the policy of replacing with heavier steel the light rails on the various lines has been continued, a total of 155 miles of new 85-pound rails having been laid during the year. In addition to this, there have been 450 wooden trestles and culverts renewed in concrete, a total of 20,220 cubic yards of concrete being used in this work. Much concrete work on abutments for steel bridges has also been done. Steel bridge work has been installed at several places on the Fort Worth, Houston and San Antonio divisions and also on the Texas Central Railroad, this replacing pile trestles or steel work of lighter construction.

Other bridges have likewise been strengthened to permit the use of heavier engines which have been recently acquired. This strengthening of bridges is being continued over the system as needed.

The income account shows total operating revenue, \$32,346,258; increase, as compared with last year, \$4,159,539; total operating expenses, \$22,808,412; increase, \$1,602,563; net operating revenue, \$9,537,846; increase \$2,556,975; total income, \$10,204,457; increase, \$2,867,190; net income after total deductions, \$2,316,985; increase, \$2,290,817; surplus after dividends, \$1,795,933.

Total assets of the company, according to the balance sheet, were \$260,191,454, an increase of \$18,895,954, which includes the property investment at \$222,433,561.

### BIRMINGHAM—CHATTANOOGA.

#### Construction Started Out of Boaz, Ala., on Line to Be About 150 Miles Long.

Construction is proceeding on the line of the Birmingham & Chattanooga Railway from Boaz, Ala., northeast for 20 miles, contract having been awarded to Jordan & Phillips of Birmingham. While no other contracts are to be let at present, it is the intention of the company to connect Birmingham and Chattanooga via Boaz by a line which will be 147 miles long. The route lies for 100 miles over the plateau of Sand Mountain. There are also 30 miles of valley to be traversed, while the remainder, 17 miles, is to be through rough country. A tunnel more than 600 feet long will be required opposite Rising Fawn, Ga., and large bridges over the Tennessee River, Town Creek and Little Warrior River, with smaller bridges over lesser streams. Connections will be made with the Louisville & Nashville Railroad at Village Springs, and with the Nashville, Chattanooga & St. Louis Railway at Boaz, Ala., and Wauhatchie, Tenn., respectively.

The plans for the bridge over the Tennessee, which will span that river at Moccasin Bend, call for a structure 46 feet wide, 26 feet of which will be occupied by double tracks to be used by both steam and electric railways. There will also be a wagon road of 15 feet and a path of 5 feet width for pedestrians. Both the Birmingham & Chattanooga and the Nashville, Chattanooga & St. Louis railroads will cross the bridge. Connection will be made with the lines of the Chattanooga Traction Co., and the cars from Birmingham and Boaz will enter the city over its tracks. The bridge will cost about \$600,000. A report from Birmingham says that the Birmingham & Chattanooga is capitalized at \$5,000,000 of stock and an equal amount of bonds.

J. M. Spradlin of Boaz is president and treasurer, and W. W. Shortridge of Birmingham is vice-president and secretary. P. S. Milner is chief engineer. Others interested are C. E. Snead, G. W. Lackey and R. R. McKinsey, all of Boaz.

### TO LINK UP TROLLEY RAILWAYS.

#### Reported Plan to Form Through Route from Pittsburgh Into West Virginia.

Charter is reported filed at Morgantown, W. Va., for the Morgantown & Fairmont Railway Co. to build a trolley line from Morgantown to Fairmont, 31 miles, and this, it is said, is part of a plan to connect towns and cities in the northern part of West Virginia by electric railways with Pittsburgh. Survey and location have been made for the newly chartered company, which, it is understood, will make a link in a practically continuous route from Weston, W. Va., to Pittsburgh. The capital stock is \$25,000, and the incorporators are Wm. H. Brank, Simon L. Wildman, Wm. E. Glascock (formerly Governor), S. Fuller Glascock, John G. Samsel, John L. Hatfield, Edward G. Douley, R. E. Arnett and Harry E. Brookover.

### New Equipment, Rails, Etc.

Louisville & Nashville Railroad is to replace all wooden passenger and baggage cars on its lines with all-steel equipment. Bids for the new cars have been asked, and the first deliveries under the contract to be awarded are expected to be made about the middle of next summer.

Kanawha & Michigan Railway has ordered 7 consolidation engines from the American Locomotive Co., New York.

Matador Northern Railway has ordered rails and other track material from the National Iron & Steel Co. of Houston, Tex., for its line now under construction.

Louisville & Nashville, according to a steel market report, has purchased 800 steel underframes from the Mt. Vernon Car & Manufacturing Co., Mt. Vernon, Ill., and 300 from the American Car & Foundry Co., St. Louis, all these for cars building in its own shops.

Western Maryland Railway has ordered 20 consolidation locomotives from the American Locomotive Co.; also several switching locomotives from the Baldwin Locomotive Works, Philadelphia.

Piedmont Northern Lines, Charlotte, N. C., according to a report quoting an officer, will place orders immediately for steel equipment, including 2 parlor cars, 10 trailer cars and 6 electric locomotives, the latter to be heavier than any now used on the lines.

Wyatt Lumber Co., Wyatt, La., says a report, has ordered rails, etc., from the National Iron & Steel Co., Houston, Tex., to be used in building a logging road at Gandy, La.

Norfolk & Western Railway has ordered 6800 tons of rails from the Pennsylvania Steel Co.

Gadsden (Ala.) Car Works are reported to have completed 759 cars in November, a record output there for a single month.

Southern Pacific has ordered 29,000 tons of rails from the Tennessee Coal, Iron & Railroad Co.

Bartlesville Interurban Railway, Bartlesville, Okla., is reported to have bought a single-truck electric car from the St. Louis Car Co.

Alabama, Tennessee & Northern Railroad, says a report, is getting prices preparatory to purchasing 300 box cars, 125 gondola cars and 75 flat cars.

Carolina, Clinchfield & Ohio Railway is reported to have ordered 300 stock cars from the Pressed Steel Car Co., Pittsburgh.

Washington, Baltimore & Annapolis Railway is expected to purchase 5 all-steel double-truck heavy interurban cars.

Birmingham Railway & Light Co., Birmingham, Ala., is building 3 street cars in its own shops.

### Fort Worth-Denton Railway.

[Special Correspondence Manufacturers Record.]

Chamber of Commerce,

Fort Worth, Tex., December 5.

Financed entirely with home capital, the Fort Worth-Denton Interurban Company has been formed and the following list of directors elected by the stockholders: E. E. Baldrige, Sam Davidson, W. C. Stripling, B. J. Tillar, N. Harding, Geo. T. Reynolds, W. E. Connell, Marion Sansom, John P. King and Ben O. Smith of Fort Worth, and J. H. Paine, B. H. Davenport and J. R. Christal of Denton.

The stock subscriptions amount to \$500,000, and a call for 10 per cent. of the face value of the shares has been issued. The proposed line will run in a general northeasterly direction from Fort Worth to Denton, about 33 miles, through a well-settled and choice agricultural country. Incorporation will follow the payment of the 10 per cent. of the stock value, or \$50,000, that being a prerequisite of the Texas laws.

If the company is sold to an operating company, as is possible, the original fund will be used to finance other interurban lines, there being several directions in which it is thought railways can be run profitably out of Fort Worth.

The extension of the Fort Worth Southern Traction Co.'s lines now ending at Cleburne, from that place to Hillsboro, about 25 miles, where connection would be made with the Texas Southern Traction Co.'s line to Waco, is stated to be a settled fact. That would add about 60 miles to the available Fort Worth interurban roads.

R. O. McCORMACK, Secretary.

### Texas & Pacific Annual Report.

The annual report of the Texas & Pacific Railway Co. for the year ended June 30, 1913, shows total operating revenue \$18,078,783, increase as compared with last year \$1,105,560; total operating expenses \$14,772,781, increase \$1,464,485; net operating revenue

\$3,306,002, decrease \$358,924; operating income after deducting taxes accrued (\$693,441) and a small deficit in outside operations \$2,583,394, decrease \$305,224; gross corporate income \$2,750,470, decrease \$367,605; net income after deductions for interest, rentals, etc., \$791,841, decrease \$372,436; deficit after additions and betterments \$760,341, increase \$375,573.

It is further stated in the report that the company's facilities at all points have been maintained and improved. New spur and side-tracks have been constructed to a number of old and new industries located along the line. New passing tracks have been installed at various points, facilitating the movement of traffic. A number of new industries tributary to the system were established during the year, and the outlook for general business is encouraging.

Under the head of maintenance of way and structures heavier expenditures were necessitated by the impaired condition of the track and roadbed in Louisiana due to the overflow of the Mississippi River and its tributaries in the early part of the year. Liberal expenditures were also made for ditching and bridge renewals. There was an increase of nearly \$100,000 in the expenses for maintenance of equipment, this being necessary to raise the condition of motive power and cars to standard and to meet the requirements of service. A large proportion of the increase in transportation cost was due to the extraordinary operating conditions resulting from the floods in Louisiana.

There were sold during the year 144 town lots in 23 different towns in Texas at an average price of \$51.85 per lot, leaving unsold 6300 lots and 59,635 acres of land, nearly all of the latter being in the western part of the State and not now salable.

### Gulf, Freeport & Northern.

[Special Correspondence Manufacturers Record.]

Freeport, Tex., December 6.

Work on grading the proposed new railroad from Freeport to either Richmond or Rosenberg on the north is well under way. C. L. Sharp, vice-president and general manager of the Gulf, Freeport & Northern Railway Co., the name of this line in embryo, in a recently issued statement said:

"While there is no secret about building this railroad, we are sawing wood and saying little. The grading crew has left Columbia for a point six miles north to begin actual work. The grading outfit is equipped with a 60-horse-power Rumley engine, which will work two giant Western road graders and is capable of doing the work of 100 or more teams. When the grader has finished from Columbia to either Rosenberg or Richmond, as may be decided, the equipment will return to Columbia and work south toward Freeport."

The incorporators of the road are enthusiastic, although reticent concerning their purposes. They state that the men behind the plan are builders, and not promoters, and claim that no effort is being made to sell stock, and there is none for sale. The road will open up a rich agricultural country.

### Southern Roads Gaining in Net.

A report from Washington says that a summary of the statements of 110 railroads for October to the Interstate Commerce Commission shows that the net revenue of Southern roads is increasing, although decreases are noted as to Eastern roads. The net revenue of 23 Southern roads in October averaged \$348 per mile.

### Laying New Rails.

A report from Sherman, Tex., says that the Texas & Pacific Railway has begun laying 75-pound rails on its Transcontinental Division. The first stretch of the new work is from Sherman eastward, about 30 miles. The track is also being resurfaced as the new steel is laid.

Announcement is made of the appointment of William Henderson as traveling freight agent of the Hawkinsville & Florida Southern Railway, with headquarters at Camilla, Ga.

## FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

### Iron, Steel, Etc.

Francis Heyberger, 78 rue Danton, Levallois Perret, Seine, Paris, France, writes to the MANUFACTURERS RECORD as follows:

"I am a graduate engineer from the University of Paris, have lived here many years and am well acquainted with the business world. I would be happy to get acquainted with people of large interests who desire to extend their business in Europe, especially in France. There is money to be made in handling the special products of your country in the way of iron and steel, and the French market presents an especially good field for such articles; also novelties and other goods in that line, even if already known here, that can compete with the products at present on sale. I would like to act as agent at Paris for any of your people, but the charges for office, commissions, etc., we would have to leave to future consideration. I am certain, in co-operation with some of your manufactories, a good business could be done, and I would devote all my energy to bringing about successful results."

### For American Products.

C. D. Davies, P. O. Box 163, Kingston, Jamaica, B. W. I., writes to the MANUFACTURERS RECORD:

"As an American citizen I am very much interested in American products. While I am representing a large number of European firms in their respective lines, I shall be glad if you will furnish me with names and addresses of some of the principal manufacturers of the following lines: Cheap grade men's, women's and children's shoes; cheap grade shirts, hats, neckties, hosiery, suspenders, etc."

### Seeking Insurance Agencies.

T. H. Savani & Co., merchants, insurance and financial agents, 39-41 Apollo street, Fort Bombay, India, write to the MANUFACTURERS RECORD as follows:

"Our firm is of a long standing doing business in different lines. We are also in touch with fire and marine insurance business, and are in a position to give guarantee of safe business every year. We shall be pleased if you would put us in touch with any fire or marine insurance office not represented in Bombay."

### Pumps and Piping.

J. C. Ball & Co., Lyallpur, Punjab, India, write to the MANUFACTURERS RECORD that they want prices on 12,000 hundredweight of cast-iron pipe and on galvanized pipe girders; also want to correspond with manufacturers of pumping engines, in order to obtain drawings.

### Wants Cinematograph Films.

Eustache D. Kalghakis, Smyrna, Asia Minor, writes to the MANUFACTURERS RECORD as follows:

"Kindly give me notice by return of mail if you know any firm offering ribbons of films for cinematograph, as I wish to enter into business relations."

## MINING

### To Develop 1200 Acres.

Planning to develop 1200 acres of coal land near Man, W. Va., and capitalized at \$100,000, the Bengal Coal Co. has been incorporated with the following officers: T. F. Bailey, Jr., president; A. E. Morgan, vice-president; C. R. Conner, secretary; W. H. Cunningham, treasurer; main offices at Huntington, W. Va.

### To Mine Arkansas Bauxite.

The National Bauxite Co., Philadelphia, has leased and will develop bauxite deposits on the Dan Rauch farm, eight miles southwest of Little Rock. It will establish a plant to handle the ore for shipment to factories.

### Seibel Iron Mines.

The Seibel Iron Mines, Front Royal, Va., has been incorporated with a minimum capital stock of \$1,500,000 and the following officers: President, Benjamin Denis of Mt. Holly, N. J.; secretary, G. M. Randle of Philadelphia.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

### Equinox Mills.

The Equinox Mills Co., Anderson, S. C., capital stock \$500,000, has been incorporated by W. H. Wellington, Horace S. Sears and associates of Boston, to operate the Cox mill property recently announced as purchased by Wellington & Sears. This new corporation has decided upon betterments as follows: Addition to present mill will consist of two extensions at either end of building, one about 60x80 feet, two stories, and the other about 80x80 feet, one story. F. H. & J. G. Cunningham, Greenville, S. C., are furnishing plans for the building, and the contract has been awarded to the Gallivan Building Co., also of Greenville. No machinery of consequence is being added, but a great deal is being replaced, in order to manufacture duck. When complete, the mill will have 18,000 spindles and 428 looms. Practically all the machinery has been contracted for and deliveries are commencing. About \$25,000 will be invested for buildings, tenement-houses, etc., and about \$150,000 to replace machinery.

### The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first three months of the season was 7,447,617 bales, an increase over the same period last year of 92,697 bales. The exports were 3,948,159 bales, an increase of 13,729 bales. The takings were, by Northern spinners, 964,575 bales, an increase of 66,496 bales; by Southern spinners, 1,082,708 bales, an increase of 213,528 bales.

For the first 96 days of the present season the takings were 7,943,028 bales, an increase of 137,693 bales. The exports were 4,158,395 bales, an increase of 24,017 bales. The takings were, by Northern spinners, 1,071,085 bales, an increase of 68,417 bales; by Southern spinners, 1,190,032 bales, an increase of 256,709 bales.

### To Finish Cotton Goods.

Oliver J. Grace, J. C. Leadbetter and associates, St. Louis, have incorporated the St. Louis Bleaching and Dye Works, with a capital stock of \$100,000. This company will build a plant to bleach, dye and finish cotton goods, the annual capacity to be 22,000,000 yards of cloth. An architect is now preparing the plans and specifications.

### Textile Notes.

The Marshall Field Co., Spray, N. C., contemplates constructing a \$150,000 consolidated steam plant to furnish power to cotton mills the company controls.

Permit to build a factory addition of brick construction, reported to cost \$5000, has been granted to the



American Manufacturing Co., manufacturer of cordage, St. Louis.

The Perkins Hosiery Mills, Columbus, Ga., has applied for a new charter, including an increase of capital stock from \$300,000 to \$750,000, but the company has no present plans for improvements or enlargements.

The Demopolis (Ala.) Cotton Mills has been organized, with \$30,000 capital, to succeed the Elmore Cotton Mills, and is now making improvements to machinery and buildings. W. W. Brame is president, and Jas. S. Bradbury, manager.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### Southern Building in November.

The following figures, as compiled from reports from representative Southern and Southwestern cities, present a brief summary of building operations in these sections during November. A total of 48 permits was issued in Norfolk during the month, representing a cost of construction of \$97,483. In Greenville, S. C., a total of 36 permits was issued, representing a cost of construction of \$72,501. For the 11 months of the year the value of operations is estimated at \$471,626. November statistics for Columbia are not available, but figures embracing the first 10 months of the year indicate the value of operations at nearly \$650,000. Permits were issued in Birmingham during November for construction estimated to cost \$289,780. For the 11 months of the year the value of operations is estimated at \$6,022,254. As compared with the corresponding period last year, these figures show an increase of \$2,577,446. In Tampa a total of 123 permits was issued during November, representing a cost of construction of \$142,660. A total of 46 permits was issued in Miami, representing a cost of construction of \$45,780. The value of operations in St. Petersburg during the month was estimated at \$70,000. Permits were issued in Memphis during November to the number of 213, representing a cost of construction of \$211,271. As compared with November, 1912, these figures show a decrease of \$377,234. For the 11 months of the present year building permits have been issued in Lexington, Ky., to a value of \$813,000. Operations for November in the nine principal cities of Texas aggregated \$1,568,835. Of these, Dallas led, with a total of \$876,615. Other cities reported as follows: Houston, \$214,395; Fort Worth, \$159,400; San Antonio, \$102,800; Waco, \$86,900; Galveston, \$61,131; El Paso, \$34,405; Beaumont, \$19,058, and Austin, \$15,041. In Huntington, W. Va., a total of 77 permits was issued during the month, representing a cost of construction of \$115,065. As compared with November, 1912, these figures show an increase of about \$50,000. A total of 333 permits was issued in the District of Columbia during the month, representing a cost of construction of \$614,033. The value of operations in Baltimore was estimated at \$789,358, and for the 11 months of the year the estimate is \$10,873,832.

### Hardwood Manufacturers at Memphis.

President W. E. De Laney of the Hardwood Manufacturers' Association has issued a call for the next annual convention of the organization, to be held at Memphis January 21 and 22. The call includes a cordial invitation for consumers of hardwoods to attend. These conventions for the past four years have been held at Cincinnati, but the decision to hold it this time in Memphis is in line with a request made by the Southern lumbermen. The meeting will be one of the most important ever held by the association, which is a factor of tremendous importance in the hardwood industry.

### To Rebuild Iron Furnace.

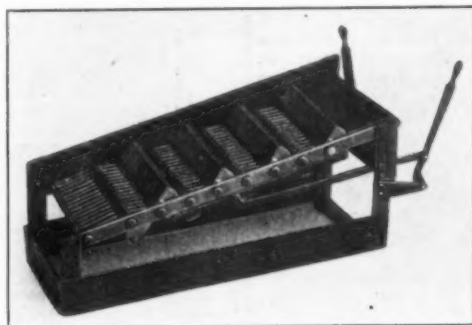
The Republic Iron & Steel Co., Birmingham, Ala., will rebuild its No. 1 iron furnace, practically constructing a new plant, at a cost of \$75,000. It does not at present contemplate any by-product coke ovens or new construction and equipment at Palos mine.

## MECHANICAL

### Huber Grate and Stoker.

A form of grate bar is shown in the accompanying illustration which has been designed to eliminate the losses resulting from frequent slicing and cleaning of fires, formation of clinker in grates, causing them to burn out, and also to lighten the labor of firing, so that fewer men may be required to handle a battery of boilers. The amount of smoke is reduced, and by the addition of an underfed stoking attachment, which has been tested out by the Huber Grate Bar & Stoking Co. of Baltimore, Md., a smokeless stoker is made. The grates may be operated at intervals by hand, or if sufficient boilers are in use they are operated constantly by a power-driven shaft and gearing.

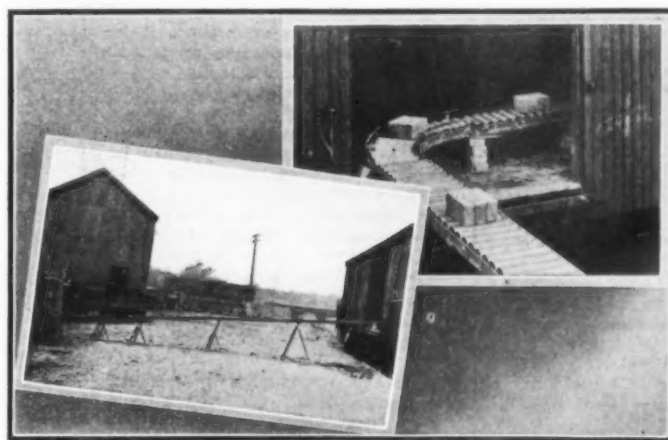
In construction, the grates are fitted with two bearing trusses running lengthwise as shown, and having clips bridged across from truss to truss. The bearings



HUBER SHAKING GRATE.

are placed off the center line of the bars, so that an eccentric motion is transmitted when the handles are moved. This raises the rear edges of the grate bars. Each set of alternate bars is operated by one of the two levers, so that a lifting and forward movement of the fuel is produced. The clinker formation is prevented, or clinkers formed are broken up, and the ash and refuse is carried along to the dump grate. It may be cleared by dropping the front edge by means of the dumping lever provided.

Smoke is reduced by the use of the grates even without the stoker attachment, due to the coking of the coal at front of the furnace, and the passage of the gases over the firebed, rendering more complete combustion



MATHEWS GRAVITY CONVEYOR AS USED IN UNLOADING BRICKS.

than is the case when the fresh coal is spread over the entire grate surface.

These bars have been in successful use in the plant of the Terminal Freezing & Heating Co. for several months, and others have recently been installed in the furnaces at the power plant of W. A. Rockwell, Berkeley Springs, W. Va.

The company's claims for economy, simple means of installing and other advantages are stated in a catalogue in which the bars are also fully illustrated.

### Felton Curved Floor Sweep.

A floor sweep designed to meet general cleaning conditions and to reduce expense for brooms is shown in the accompanying illustration. The tough and durable

fiber forming the brush face is mounted in a curved hardwood block, so that it throws the dirt toward the center instead of blowing it about the floor.

These sweeps are manufactured by the D. D. Felton Brush Co., Atlanta, Ga. The company makes an extensive line of brushes of various types, and repairs all



FELTON FIBER SWEEP FOR FLOORS.

kinds of brushes. The Felton curved brushes are made in grades to suit hardwood floors, tile floors or rough line and cement floors. It is claimed that the use of these sweeps will greatly reduce cleaning expenses, as one of them will outlast several brooms. The brush is illustrated in a mailing card issued by the company.

### Mathews Gravity Brick Conveyor.

The application of the gravity carrier system as developed by the Mathews Gravity Carrier Co., Elwood City, Pa., has been made in the handling of bricks, with the view of greatly increasing economy. The accompanying illustration shows a practical demonstration of this method. The device is simple and practical, consisting of steel ball-bearing rollers set close together in a steel frame and adjusted on the slight fall of a 4 per cent. grade. The weight of the bricks on these easily-running rolls carries them any required distance and around sharp curves.

By this method the time and labor necessary to unload a car of brick has been reduced, in some cases stated to be fully 75 per cent. No matter how far the bricks are to be delivered from the car, the work is carried on just as rapidly as if being loaded directly into wagons. This is explained by the fact that after the line of the conveyor has become loaded from end to end, the work of putting the bricks upon the conveyor in the car and then taking them off at the wagon or brick pile is a continuous process which does not require taking into consideration the time of the bricks in moving from the car to the unloading point.

While loading into wagons the only sections of Mathews gravity conveyor required are three four-foot

sections, one eight-foot section and one ninety-degree curve section, which may be obtained at a low cost compared to the great economy secured.

The conveyors have been in practical use and are fully demonstrated and tested. Detailed information regarding them will be furnished on request to the company.

### Wanted for European Markets.

Edwin C. Loewenthal, 17 W. 94th street, New York, writes to the MANUFACTURERS RECORD as follows:

"I intend to go to Europe about January 15, and am in a position to handle, as manufacturers' agent, any line of merchandise that can be exported to Europe (especially Germany) and will stand competition."

# Construction Department

## TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

### BRIDGES, CULVERTS, VIADUCTS

Ark., Batesville.—Independence County Comms. plan, it is reported, construction of various bridges; estimated cost \$133,000.

D. C., Washington.—Dist. Comms. let contract to A. Guldene & Co., 131 E. 23d St., New York, at \$158,484 to construct 5-span bridge over Rock Creek at Q St.; Glen Brown, Supervising Archt.; D. E. McCooms, Dist. Engr. of Bridges. (Lately noted.)

Fla., Sarasota.—Manatee county votes Jan. 12 on \$425,000 bonds for bridge over Manatee River and road construction. Address County Comms.

Miss., Allen.—Yazoo & Mississippi Valley R. R. Co., A. S. Baldwin, Ch. Engr., Chicago, advises has not decided on method of rebuilding bridge across Big Black River. (Lately noted under Miss., Vicksburg.)

Miss., Batesville.—City will construct reinforced concrete bridge; bids until Jan. 7; J. B. Carothers, Clerk. (See Machinery Wanted.)

Miss., Gulfport.—Harrison county will, it is reported, construct 3 bridges—200-ft. steel bridge over Wolf River, 200-ft. trestle over Choctaw Creek and 100-ft. wooden bridge over Bayou de Lisle. Address County Commissioners.

Miss., Hattiesburg.—Forrest County Supervisors are reported to invite bids to construct 3 steel bridges.

Miss., Jackson.—City will construct four 90-ft. reinforced concrete bridges over Town Creek on Pearl, Pascagoula, South and Ran-

kin Sts.; bids until Dec. 18; Massena L. Culley, City Engr.; L. J. Monahan, City Clerk; lately noted. (See Machinery Wanted.)

Miss., Kosciusko.—Highway Comms., Supvrs. Dist. No. 1, Attalla county, will construct bridges and culverts, probably of concrete, in connection with 17-mi. road contract; bids received until Jan. 5 (changed date from Jan. 6); lately noted. (See Road and Street Work.)

Miss., Pascagoula.—Jackson County Supvrs. will construct 26 steel bridges in various parts of county; let contract Jan. 5; address County Supvrs. (See Machinery Wanted.)

Mo., Independence.—Jackson County Commissioners let contract Mulholland Construction Co., Kansas City, to construct 2 bridges, one to be over Metropolitan tracks on Blue Ridge Blvd., at Athol Station, to cost \$6198, and other to be overhead structure on Sul-a-Bar Rd. to cost \$4400.

Mo., St. Louis.—St. Louis & San Francisco R. R., V. K. Hendricks, Asst. Ch. Engr., St. Louis, let contract to Jarrett-Richardson Paving Co., Springfield, Mo., to construct proposed concrete viaduct over tracks at Tower Grove and Vandeventer Aves.; estimated cost \$100,000.

S. C., Columbia.—Lake View Investment Co., F. D. Kendall, Chrm. of Com., will construct 80-ft. span, etc.; bids until Dec. 18. (See Miscellaneous Construction and Machinery Wanted.)

Tenn., Chattanooga.—Birmingham & Chattanooga R. R. Co., P. S. Milner, Ch. Engr., advises (through W. H. Shortridge, Secy., Boaz, Ala., will build Tennessee River bridge at Chattanooga, bridges at Town Creek and Little Warrior, and several smaller struc-

Miss., Long Beach.—American Pickle & Canning Co., Wiggins, Miss., will establish pickling, canning and catsup making plant; erect \$10,000 buildings; construction by P. H. Roberts (lately noted interested); open machinery bids Feb. 1. (See Machinery Wanted.)

S. C., Charleston.—Crescent Mfg. Co., capital \$1000, inceptd. to operate general vegetable cannery; W. W. McIver, Prest.-Treas.; W. C. Bissell, Secy.

### CLAYWORKING PLANTS

Mo., Hannibal.—Missouri, Kansas & Texas Ry., A. M. Acheson, Ch. Engr., Dallas, Tex., plans to construct bridge across Mississippi River.

Okla., Blackwell.—Bricks.—J. L. Walte, E. H. Peine and L. H. Thompson are promoting organization of company to establish brick plant; install electrical machinery; purchased 16 acres land containing shale deposits.

Okla., Muskogee.—Tiling, Sewer Pipe, etc.—W. S. Dickey Clay Mfg. Co., Kansas City, Mo., will build plant to manufacture tiling, sewer pipe, due linings, etc.; Fred L. Dickey, Kansas City, wires Manufacturers Record: "Plans for proposed Muskogee factory not complete; character of construction and size of buildings not definitely decided."

W. Va., Parkersburg.—Roofing Tile.—United States Roofing Tile Co., capital \$400,000, completed organization with Frank L. Beam, Prest.; E. S. Moore, V.-P. and Treas.; E. P. Elzey, Secy.; Henry G. Beam, Gen. Mgr.; D. A. Cable, Gen. Supt.; will erect \$30,000 fireproof buildings; plans by company; takes over two plants now in operation; daily capacity 5 carloads roofing tiles;

plants at Parkersburg and Canton, Ohio. (Lately noted inceptd.)

### COAL MINES AND COKE OVENS

Ky., Covington.—Carlisle Coal & Land Co., capital \$5000, inceptd. by Richard P. Ernst, Geo. Stugard and John E. Shepherd.

Ky., Hazard.—Kentucky Block Coal Co., J. B. Allen, Mgr., has, it is reported, completed arrangements for developing coal mines and will provide for daily capacity of 800 tons; install power and mining equipment; develop 340 acres.

Ky., Louisville.—Virginia Coal Co., capital stock \$10,000, inceptd. by C. N. Boone, F. A. Hildebrand and L. J. Bergenroth.

Ky., Louisville.—Virginia Coal Co., capital \$1000, inceptd. by F. A. Hildebrand, C. N. Boone, L. J. Bergenroth and P. C. Bergenroth.

Tenn., Chattanooga.—Four-Mile Coal Co., capital \$30,000, inceptd. by J. H. McCollum, W. H. Schilderink, H. L. Covey and others.

Tenn., Spring City.—Central Tennessee Development Co., capitalization \$6,000,000, incorporated by George Wilkinson of Philadelphia, Pa.; W. B. Lance of Reading, Pa., and A. P. Stevenson of Wilmington, Del.; probably this company plans coal-land developments, coke-oven construction, etc., recently reported proposed by Colonel Wilkinson, A. E. Ausman of Spring City and associates. (Lately noted.)

W. Va., Bluefield.—Appalachian Coal Land Co., capital stock \$100,000, inceptd. by J. Elhott Hall, T. M. Morrison, W. T. Williams and others.

W. Va., Man.—Bengal Coal Co., capital \$100,000, inceptd. by T. F. Bailey, Jr., Prest.; A. E. Morgan, V.-P.; C. R. Conner, Secy.; W. H. Cunningham, Treas.; will develop 1200 acres; main office, Huntington, W. Va.

### CONCRETE AND CEMENT PLANTS

Fla., Miami.—Monumental Work.—Marbleized Cement & Monumental Co., Cor. Ave. C and 10th St. (lately noted inceptd., capital stock \$20,000), advises will establish plant for production of marble, granite and monumental work (imitation and natural); open bids February 1 to erect \$5000 100x300-ft. fireproof building; also machinery bids at same time. (See Machinery Wanted.)

Fla., Tampa.—Bricks, etc.—W. J. Redmond, Birmingham, Ala., is considering establishment of plant to mfr. cement and concrete pressed brick.

Mo., St. Louis.—Concrete Blocks, etc.—Crescent Concrete Mold Co., capital stock \$16,000, inceptd. by John H. Bruninga, Thos. E. Vaughan and A. C. Stewart.

### COTTON COMPRESSES AND GINS

Ga., Towns.—J. H. Livingston Co., capital stock \$5000, inceptd. by E. B. Whildon, John H. Livingston and others; to operate cotton compress and gin and cottonseed-oil mill.

S. C., Aiken.—Community Services Co., capital stock \$5000, inceptd. by John M. Given, A. W. Reynolds and Jason Woodward.

S. C., Aiken.—Community Service Co., capital \$5000, inceptd. by J. M. Given, A. W. Reynolds and Jason Woodward.

Tex., Chandler.—Dabney White purchased, it is reported, gin of Birdwell Bros. and will rebuild; building to be of corrugated-iron throughout; fireproof; cement floors; equipment to include hydraulic presses, buller gin stands, equipment for cleaning seed cotton and cottonseed and unloading devices for handling seed and ginned cotton; also install grist mill and private electric-light plant.

### COTTONSEED-OIL MILLS

Ala., Birmingham.—Butler-Kyser Oil & Fertilizer Co., J. H. Duncan, Mgr., will make repairs necessary by lately-noted fire loss and replace destroyed machinery; no further improvements contemplated.

Ga., Towns.—J. H. Livingston Co. inceptd. by E. B. Whildon and others. (See Cotton Compresses and Gins.)

### DRAINAGE SYSTEMS

La., Monroe.—Commrs. Lafourche Drainage Dist. are reported as having received preliminary report of Ch. Engr. R. L. Morris and making preliminary arrangements to organize district to comprise about 445,000 acres.

### ELECTRIC PLANTS

Ala., Carrollton.—City Council is reported to have granted Delmar Lumber Co. (Geo. M. Collins and Dr. H. H. Mobley of Gordo) franchise for electric-light plant; machinery to be purchased.

Ark., Arkadelphia.—H. C. Couch and others, Little Rock, purchased Arkadelphia Electric Light & Water Co.'s property, and will, it is reported, expend \$10,000 to \$15,000 for improvements. (Lately noted.)

Ark., Earle.—Crittenden Power Co., capital stock \$20,000, inceptd.; John F. Rhoades, Prest.; H. A. Morrison, V.-P. and Treas.; J. B. McMillan, Secy.

Ark., Fort Smith.—City is considering construction of electric-light plant. Address The Mayor.

D. C., Washington.—Treasury Dept., Oscar Wenderoth, Supv. Archt., will build central heating and power plant to furnish heat, light and power for Bureau of Engraving and Printing, Dept. of Agriculture, Treasury, White House and buildings on its grounds, Army and Navy Medical Museum, State, War and Navy, Winder Bldg., Mills Bldg., National Museum, Smithsonian Institution, Fish Com., Washington Monument, Dist. Bldg. and Postoffice; also proposes to extend plant's facilities to include new buildings for Depts. of State, Commerce, Justice and Labor when these structures are completed.

Fla., Auburndale.—T. I. Woods, Lakeland, Fla., submitted proposition, it is reported, to construct light and water plants.

Fla., Auburndale.—C. O. Pinch, Atlanta, Ga., submitted proposition, it is reported, to construct light and water plants.

Fla., Zolfo.—Town Council is reported as corresponding with Wauchula Mfg. Co., Wauchula, Fla., relative to constructing system and furnishing electric lighting.

## PROPOSAL ADVERTISEMENTS

IN THIS ISSUE ARE

PUBLISHED ON PAGES 76 and 77

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tures; also 600-ft. tunnel opposite Rising Fawn, Ga. (Lately incorrectly noted under "Ala.")

Tenn., Kingsport.—Bricks.—J. Fred Johnson, Prest. Kingsport Brick Corp., Johnson City, Tenn., wires Manufacturers Record: "We do not contemplate any immediate improvements." (Lately reported to double present monthly capacity.)

Tex., Dallas.—City will construct concrete bridges across Mill Creek at both Thomas and Carroll Aves.; will invite bids; J. B. Winslett, City Secy.

Va., Richmond.—Southern Ry., B. Herman, Ch. Engr., Washington, D. C., is reported as to build concrete bridge over tracks at Lester St.

Va., Richmond.—Chas. E. Bolling, City Engr., advises relative to lately-described proposed bridge across James River at 9th St.; Administrative Board accepted designs from competitive designs submitted, but no appropriations have been made or bids asked.

W. Va., Rainelle.—Greenbrier county will construct reinforced concrete arch bridge over Meadow River, 1½ mi. from Rainelle; bids until Jan. 5 on 100-ft. clear span, 16-ft. roadway, wing walls with hand railing 3 ft. high, 20-ft. roadway at end of wing walls; also on two 50-ft. clear spans, measurements same as in above; John S. Crawford, Clerk, Lewisburg, W. Va. (See Machinery Wanted.)

### CANNING AND PACKING PLANTS

Ark., Gravette.—F. M. Marr, Hiwassee, Ark., is reported to have submitted proposition to establish cannery.

La., Jennings.—S. A. Sutter is reported to erect cannery.

Miss., Bond.—Mills Farms Co., F. B. Mills, Mgr., Rose Hill, N. Y., contemplates building cannery.



Fla., Passagrille.—Town is reported to have voted \$2500 bonds to build electric-light plant. Address Town Clerk. (Lately noted.)

Ga., McDonough.—J. G. Smith, owner local electric-light plant, contemplates, it is reported, constructing 1 mi. distribution line and installing street-lighting system, consisting of 44 series tungsten lamps.

Ky., Flemingsburg.—Flemingsburg Light & Ice Co. contemplates, it is reported, installing 150 H. P. engine and 100 K. W. direct-current generator (directly connected) and one 72-in. by 18-ft. return tubular boiler; machinery to be purchased. C. E. Cooper, Secy. and Mgr.

Ky., Hardin.—A. L. Griffin & Son will install electric-light and ice plant. (See Machinery Wanted.)

Ky., Louisville.—Louisville Gas & Electric Co. employed construction and engineering department of H. M. Byllesby & Co., Insurance Exchange Bldg., Chicago, as consulting engineers and supervisors for proposed extension of Waterside station; immediately includes eight 500 H. P. boilers, two 5000 K. W. turbines, coal-handling machinery, etc. (Lately noted practically arranged for all material and machinery.)

Ky., Pikeville.—Sandy Valley Light & Power Co. contemplates, it is reported, changing entire plant from 220 volts, direct current, to 2200-110 volts, 60 cycle, alternating current, including 40,000 to 2200 volts switching apparatus and transformers; also expects to purchase about 250 meters, lighting-arrester equipment for 2200 volts, series tungsten street-lighting outfit and electrical appliances and supplies; machinery to be purchased. L. L. Stone, Gen. Mgr.

Ky., Scottsville.—Mays & Slynker, Glasgow, Ky., have, it is reported, purchased electric-light plant and will install machinery.

Mo., Clarence.—City considering, it is reported, installing direct-connected unit. D. McIntire, Supt.

Mo., Jefferson City.—State awarded contract to Jas. E. Smith, St. Louis, to build power-house for Capitol under construction; also has tunnel contract; Smith contract about \$50,000.

Mo., King City.—King City Electric & Mfg. Co. contemplates installing, it is reported, 30 K. W. or 37½ K. W. 3-phase 60-cycle 2300-volt generator, 3 K. W. exciter and tungsten lamps; machinery to be purchased. Harry V. Forest, Secy.

Mo., Kirkwood.—Managers municipal electric-light plant contemplate, it is reported, installing equipment, including engines, boilers and generators, for 300 K. V. A. plant; also install 10-ton ice plant in connection with electric plant; machinery to be purchased. W. A. Trussel, Supt.

Mo., Marshall.—City votes Dec. 18 on \$70,000 bonds to build electric-light plant. Address The Mayor.

Mo., Marshfield.—John Hosmer, Propr. Marshfield electric-light plant, will, it is reported, erect addition; cement blocks; install 5-ton ice plant.

Mo., Ozark.—Water Power & Light Co. contemplates installing 100 H. P. 25-cycle 2200-volt slow-speed motor and possibly a 75 K. W. 60-cycle 2300-volt generator; machinery to be purchased. S. E. Bronson, Mgr.

N. C., Greenville.—Water and Light Co. contemplates installing 500 K. W. steam turbine engine (directly connected), two 250 H. P. water-tube boilers, 175 lbs. working pressure; one three-stage pump, having a capacity of 1000 gals. per minute, directly connected to three-phase 2300-volt motor; machinery to be purchased. H. L. Allen, Supt.

Tenn., Livingston.—City granted franchise, it is reported, to Livingston Electric Light & Power Co. for electric lights.

Tex., Chandler.—Dabney White will, it is reported, install electric-light plant. (See Cotton Compresses and Gins.)

Tex., Houston.—Weaver Heating, Power & Process Co., capital stock \$100,000, inceptd. by H. E. Weaver, H. R. Bartlett, Geo. Mammon and others.

Tex., Houston Heights.—City votes Dec. 18 on granting franchise to S. J. Dill & Co. of New York to furnish light, gas and water. Address The Mayor.

Tex., Mission.—Town proposes granting franchise for electric-light plant and water-works. Address Town Clerk.

Va., Richmond.—Richmond College has plans for power-house, etc.; cost of power-house \$25,000. (See Water-works.)

## FLLOUR, FEED AND MEAL MILLS

N. C., St. Pauls.—W. K. Culbreth advises (from Lumberton, N. C., R. F. D. No. 6) that lately-noted flour mill will be removed from Pembroke to St. Pauls; some changes to be made in company, but not yet decided.

Tenn., Lenoir City.—Dempster Milling Co., capital \$10,000, organized by officials of Lenoir City Co. and others; remodeling old Dempster mill and installing machinery; daily capacity 75 bbls. flour and 300 bus. meal; operate mill by electricity from local transmission system.

Tex., Chandler.—Dabney White will, it is reported, install grist mill. (See Cotton Compresses and Gins.)

## FOUNDRY AND MACHINE PLANTS

Fla., Jacksonville.—Gas and Electric Generators, etc.—Suburban Gas Co., capital stock \$100,000, inceptd. to mfr. gas and electric generators and burners, hydro-carbon burners, incandescent and gasoline lamps, etc.; V. C. Severance, Prest.; C. H. Childs, V.-P.; Thos. B. Adams, Secy.-Treas.

Md., Baltimore.—Castings—Diez & Roemer Brass Co., 440 N. Front St., purchased site 20x75 ft. on Fallsview near Lexington St.; will improve with factory and foundry; contemplates erecting 4-story fireproof building; cost not decided; opens building proposals Jan. 1; plans by M. Fred Thomas; not yet decided on machinery to be installed; manufacture brass, bronze and aluminum castings, finished and unfinished.

Mo., Harrisonville.—Bridges.—Western Bridge Co., capital stock \$10,000, inceptd. by Geo. and Allen W. Bird.

Mo., St. Louis.—Ice-cream Machinery.—Retzbach Ice Cream Bricking Machine Co., capital stock \$10,000, inceptd. by Edward J. Retzbach, Clemens A. Dierkes and L. C. Retzbach.

N. C., Greensboro.—Machine Shops.—North Carolina Public Service Co. will install machine shop equipment in building, 75x150 ft., now being erected.

N. C., Liberty.—Machinery.—Liberty Machine & Motor Co., capital stock \$25,000, inceptd. by C. R. Curtis, H. J. Frazier, R. C. Smith and others.

Tenn., Nashville.—Car Wheels, etc.—J. R. Davies, Waukegan, Ill., plans, it is reported, to establish plant to mfr. car wheels, molding machines, etc.

Tex., Houston.—Electrotypes.—Houston Electrotypes Foundry, 126½ Preston St. (plant at 603 La Branch St.), organized; Hilton E. Dunseth, Prest. and Mgr.; B. T. Lunn, V.-P.; J. C. Wheeler, Secy.-Treas.; installed machinery to manufacture electrotypes. (Lately noted inceptd., capital stock \$7000.)

## GAS AND OIL ENTERPRISES

Ala., Dothan.—Gas Plant.—City is investigating with view to construct gas plant. Address City Clerk.

Fla., St. Petersburg.—Gas Plant.—City voted to construct gas plant. Address City Commrs. (Lately noted.)

La., Ruston.—Ruston Oil & Fuel Co. let contract, it is reported, to J. W. Champion, Mansfield, to drill well.

Md., Salisbury.—Wicomco Oil & Gas Co., capital stock \$300,000, inceptd.; W. S. Lowe, Prest.; Thos. Lavery, V.-P.; Samuel R. Douglas, Secy.; plans gas and oil development; lately noted. (See Machinery Wanted.)

Miss., Oloh.—Mississippi Oil & Gas Co. organized with Dr. Brown, Prest., Sumrall, Miss.; W. N. Collins, Secy.-Treas.; Oloh; M. A. Currie, Gen. Mgr., Shreveport, La.; develop 15,000 acres oil land in Lamar and Marion counties.

Okla., Ardmore.—Ardmore Oil Co., capital \$20,000, inceptd. by L. H. Love, H. C. Potterf, J. W. Harrold and W. B. Johnson.

Okla., Ardmore.—Sure Shot Oil Co., capital \$25,000, inceptd. by F. B. McElroy, Jeff Craddock, N. E. Dixon and others.

Okla., Ballard.—Mid-West Real Estate & Oil Co., capital \$35,000, inceptd. by J. E. Manley, Kansas City, Mo.; M. R. Lively, Webb City, Mo., and Vern E. Thompson, Miami, Okla.

Okla., Cushing.—Yale Natural Gas Co., capital \$50,000, inceptd. by W. H. Tippet, Cushing; W. J. Rowland, Pittsburgh, Pa., and F. T. Rowland, Greenville, Ill.

Okla., Henryetta.—Rooster Foot Oil Co., capital \$18,000, inceptd. by J. C. Robinson, Jas. Hawes, W. C. Sanderson and others.

Okla., Henryetta.—German Oil & Gas Co.,

capital \$50,000, inceptd. by Wm. Bird, I. H. Cox and Walter R. Wilson.

Okla., Hugo.—DeQuoit Oil & Gas Co., capital \$25,000, inceptd. by A. J. Wright, J. L. Kimmel and I. L. Strange.

Okla., Oklahoma City.—English Oil Co., capital \$25,000, inceptd. by C. J. Webster, B. T. Glover, C. M. Hammell and others.

Okla., Oklahoma City.—Creekasaw Oil & Gas Co., capital \$3200, inceptd. by Frank McKay, Hardy R. Hinton and R. D. McKay.

Okla., Oklahoma City.—Dawson Gas Co., capital \$5000, inceptd. by K. W. Dawson, John Wood and Leah K. Dawson.

Okla., Oklahoma City.—Preferencia Oil & Gas Co., capital \$10,000, inceptd. by Carter, G. W. Bingham and Clinton O. Bunn.

Okla., Oklahoma City.—C. H. R. Oil & Gas Co., capital \$6000, inceptd. by C. D. Coll, H. Ernest Rowe and David W. Hudson.

Okla., Oklahoma City.—Dingee Oil & Gas Co., capital \$10,200, inceptd. by J. F. Dingee and W. A. McKee of Oklahoma City and Chas. W. Neal of Cushing.

Okla., Oklahoma City.—Cimarron River Bed Oil & Gas Co., capital \$60,000, inceptd. by O. G. Harper and E. C. Johnson of Buffalo, Okla., and E. B. Hinshaw of Broken Arrow, Okla.

Okla., Oklahoma City.—Larett Oil Co., capital \$25,000, incorporated by Guy E. Blackwelder, Leroy Paddock and M. A. Swatek.

Okla., Sapulpa.—Argo Oil Co., capital \$9000, inceptd. by Pearl B. Jackson, Irene Lee and others.

Okla., Skiatook.—Holcomb Drilling Co., capital \$10,000, inceptd. by C. W. Holcomb, L. L. Wiles and A. W. Lucas.

Okla., Tulsa.—Oriole Oil Co., capital \$50,000, inceptd. by T. H. Bass, Houston, Tex.; V. L. Bass, San Antonio, Tex., and J. E. Burke, McAlester, Okla.

Okla., Tulsa.—Oil Refinery.—J. S. Cosden & Co., capital \$1,200,000, inceptd. by J. S. Cosden, E. R. Perry and others. (Previously noted as building refinery to cost about \$500,000, daily capacity 6000 bbls. oil.)

Tex., Houston Heights.—City votes Dec. 18 on granting franchise to S. J. Dill & Co. of New York to furnish gas, water and light. Address The Mayor.

Tex., Smithville.—Commercial Club formulated plans, it is reported, for organizing company to drill for natural gas.

Tex., Waco.—Gas-pipe Line.—T. F. Smith, Mexia, Tex. (relative to lately-noted plans of P. A. Little and others), advises Manufacturers Record that deal has been closed by himself, Little & Willett, Buffalo, N. Y., and J. T. Driscoll of Indianapolis for gas of Mexia Oil & Gas Co., Central Texas Oil Co., Southern Oil & Gas Co. and Trinity Valley Oil & Gas Co. at 5 cents per 1000 cu. ft. at wells; securing franchises for Waco, Hubbard City, Cooledge and Groesbeck, and purchasing pipe for these points; surveys being made; commence pipelaying by Feb. 1.

W. Va., Wetzel County.—Gordon Oil & Gas Co., capital stock \$30,000, inceptd. by Arthur Mendell, Henry H. Gerhelm, J. W. Hulse and others, all of Pittsburgh, Pa.

W. Va., Wellsburg.—Campbell Oil & Gas Co., capital \$1000, inceptd. by B. F. Campbell, Wm. Moulds, Geo. E. Patterson, H. J. McGlumpsey and Jos. Mendel.

## ICE AND COLD-STORAGE PLANTS

Ala., Corona.—Geo. L. King contemplates, it is reported, building 5 or 10-ton ice plant.

Ala., Decatur.—Decatur Ice Cream Co. (Foster H. Pointer) is reported as to build cold-storage plant in connection with ice-cream factory.

Ala., Opelika.—Opelika Oil Mill Co. contemplates, it is reported, building ice plant.

Ala., Ensley.—Steel City Ice Co., Frank J. Lange, Prest., will, it is reported, build 50-ton ice plant.

Ala., Mobile.—City Ice Co., capital \$25,000, inceptd.; Trippo Chiepalich, Prest.; Mitchell Chiepalich, V.-P.; P. H. Kearns, Secy.-Treas.; acquired plant of American Ice & Fuel Co. at Royal and Theater Sts.

Ky., Clay.—Clay Light & Ice Co. will, it is reported, enlarge ice factory and install additional electrical equipment.

Ky., Hardin.—A. L. Griffin & Son will install ice and electric-light plant. (See Machinery Wanted.)

Ky., Glasgow.—Glasgow Electric Light & Ice Co., A. Boyd, Mgr., is reported to install 10-ton ice plant; equipment to include condensers, brine tank coils, ice cans, etc.

Ky., Versailles.—Versailles Ice Mfg. Co., capital \$15,000, inceptd. by Fred J. Sutterlin, Frank J. Sutterlin and Wm. F. Sutterlin of Frankfort.

Miss., Bond.—Mills Farms Land Co., F. B. Mills, Mgr., Rose Hill, N. Y., contemplates building ice plant.

Miss., Meridian.—Bostick Lumber & Mfg. Co. will enlarge plant; erect 70x114-ft. addition; machinery purchased; increase daily capacity of ice plant to 75 tons; cold-storage capacity, 20 tons daily.

Miss., Meridian.—Bostick Lumber & Mfg. Co. will, it is reported, enlarge ice plant, increasing capacity to 75 tons daily; also install 30-ton cold-storage plant; new building to be 70x114 ft.; purchased machinery.

Mo., Albany.—Earl E. Moore, Faucett, Mo., contemplates, it is reported, building 5-ton ice plant.

Mo., Brunswick.—L. Klinkhorst has plans, it is reported, for ice plant.

Mo., Kirkwood.—Managers municipal electric-light plant contemplate installing 10-ton ice plant in connection with electric-light plant. W. A. Trussel, Supt. (See Electric Plants.)

Mo., Mexico.—Arctic Ice & Cold Storage Co. will remodel and reconstruct plant; Robt. M. McCandlish Engineering Co., Kansas City, preparing plans.

Mo., Neosho.—Neosho Ice Co. is having plans prepared, it is reported, for ice storage-house to cost about \$20,000.

Okla., Okmulgee.—Okmulgee Ice & Light Co., C. W. Dawley, Mgr., reported as to enlarge ice factory; increase daily capacity from 25 to 55 tons.

Okla., Pawhuska.—Pawhuska Ice Co. will, it is reported, increase capital stock from \$15,000 to \$35,000 and increase daily capacity of ice plant from 20 to 40 tons.

Okla., Pawnee.—Pawnee Ice, Fuel & Bottling Co. will increase capacity of ice plant from 10 to 24 tons; machinery received.

Okla., Texhoma.—F. M. Harn, Supt. Texhoma light plant and water-works, contemplates building 5-ton ice plant with cold-storage of about 40,000 cu. ft.; use oil engine for power.

Okla., Woodward.—Railways Ice Co., Geo. Adams, local manager, will enlarge ice factory; install 35-ton refrigerating machine and ice-making system; increase daily capacity to 30 tons; let contract for machinery.

Tex., Sulphur Springs.—Sulphur Springs Ice Co. is reported as having plans prepared for ice storage-house to cost about \$15,000. (Lately noted.)

Tex., Sulphur Springs.—Crystal Ice Co. is reported as to improve plant; contemplates constructing cold-storage vaults.

Tex., Waco.—Big Four Ice & Cold Storage Co. will, it is reported, enlarge ice factory; install 50-ton ice machine.

Tex., Waco.—Geyser Ice Co. is reported as contemplating to remodel ice plant; cost \$10,000. (Lately noted to erect cold-storage plant, capacity 2000 tons, to cost \$30,000.)

Tex., Waxahachie.—Waxahachie Ice Works increased capital stock from \$20,000 to \$40,000; install 40-ton additional ice plant, making total capacity 76 tons. (Lately noted.)

Tex., Waxahachie.—Waxahachie Ice Works increased capital stock from \$20,000 to \$40,000. Va., Tazewell.—Star Milling Co. contemplates, it is reported, building cold-storage-house and installing refrigerating plant.

## IRON AND STEEL PLANTS

Ala., Thomas.—Iron Furnace.—Republic Iron & Steel Co., Birmingham, will reconstruct iron furnace No. 1 at cost of \$75,000, practically building new plant; improvements to include erection of tippie, washer and accompanying facilities; no by-product coke-ovens contemplated now and no new construction or equipment for Palos mines; general office, First National Bank Bldg., Chicago.

## LAND DEVELOPMENTS

Ark., Little Rock.—West End Land Co., capital \$50,000, inceptd.; R. J. Pasternack, Prest.; P. B. Faulkner, V.-P.; Del Phillips, Secy.-Treas.; offices in Southern Trust Bldg.

Fla., Gainesville.—Gainesville Pecan Co. organized; M. H. DePass, Secy., states company name changed from American Pecan Co. of Florida, lately noted inceptd., J. D. Stringfellow, Prest.; Mr. Stringfellow is now director; capital stock, \$250,000.

Fla., Jacksonville.—Fairfield Development Co., capital \$200,000, inceptd.; A. D. Stevens, Prest.; E. E. Cheney, Secy.-Treas.

La., Shreveport.—Bodau Land Co., capital stock \$40,000, inceptd. by E. R. Ratcliff, R. T. Layne and B. DeG. Gray.

Md., Salisbury.—Ray Fruit Co. organized; C. R. Disharoon, Prest.; Orlando Harrison,

V. P.; Walter R. Disharoon, Treas.; will develop 25 acres for fruit growing; cost of improvements, \$10,000. (Lately noted inceptd., \$25,000 capital stock.)

Mo., Kansas City.—Tourtellot Land Co., capital \$10,000, inceptd. by Geo. W. Tourtellot, C. S. Gossett and W. W. Greene.

Mo., Kansas City.—W. J. Howey Land Co., capital \$10,000, inceptd. by W. J. Howey, J. H. Kelley and Perry McCullough.

N. C., Mount Airy.—Sparger Orchard Co. and Surry County Fruit & Orchard Co. consolidated and incorporated as State Mountain Orchard Co.; owns about 800 acres orchard lands; half planted in trees; arranged to plant 30 acres in trees in spring.

S. C., Charleston.—Hampton Park Terrace Co. authorized to increase capital stock from \$10,000 to \$50,000.

S. C., Marion.—Dixie Land Co. will develop 500 acres in Horry county and 1600 acres in Dillon county for farming and cattle raising; cost of improvements \$50,000; J. M. Johnson, Marion, has drainage work; officers not elected. (Lately noted inceptd., \$15,000 capital stock, by W. F. Stackhouse and others.)

Tex., Eldorado.—College Heights Realty Co., D. C. Hill, Pres., and L. M. Hoover, Secy., will develop 100 acres (in lots) adjoining Eldorado; capital stock about \$1200.

Va., Kernstown.—Freeze Land Orchard Co., C. G. Crawford, Secy.-Treas., will further develop 775 acres orchard property, 175 acres already being planted to apple and peach trees. (Lately noted inceptd., \$24,000 capital stock.)

Va., Norfolk.—Coulee Corp., maximum capital stock \$600,000, inceptd.; M. F. Parker, Portsmouth, Va., Pres.; W. R. Tolleth, Norfolk, Secy.

W. Va., Wheeling.—Dimmydale Co., capital \$100,000, inceptd. by Wm. H. Joseph A. and Louis C. Dimmie and others.

### LUMBER MANUFACTURING

Fla., St. Andrews.—West Bay Naval Stores & Lumber Co. will rebuild sawmill; ordinary construction; bids opened; daily capacity 40,000 ft. lumber; lately reported burned. (See Machinery Wanted.)

Ga., Talking Rock, R. F. D.—Coosawatie Lumber Co., Cookeville, Tenn., inceptd., capital stock \$25,000; John J. Gore, Pres.; J. C. McDearman, Secy.; J. A. Lambert, Mgr.; purchased mill.

Ky., Hazard.—Broadhead-Garrett Lumber Co., Clay City, Ky., purchased timber land, it is reported, and will install machinery for development.

Ky., Mt. Olivet.—Mr. Black of Manchester, O., purchased, it is reported, from W. T. Kerton timber on Poplar Flats and south side of pike, 100 or more acres, and will develop.

Ky., Pikeville.—Pikeville Timber & Lumber Export Co., capital \$3000, inceptd. by J. F. Pauley, W. B. Taylor and Geo. H. Holmes.

La., Winnfield.—Winnfield Lumber Co., authorized capital stock \$100,000, inceptd. with J. T. Wood, Pres.; Hugh Corry, V.-P.; W. D. Ash, Secy., and John E. Thorsell, Treas.

Miss., Kiln.—Jordan River Lumber Co. will, it is reported, rebuild plant lately noted burned at estimated loss of \$100,000; building to be of concrete and steel, with 1 band saws and resaw.

Miss., Lucien.—Central Lumber Co., Brookhaven, will, it is reported, build sawmill, R. D. Moreton, supt. of plant at McCall Creek, to supervise operations at Lucien.

N. C., Scotts Hill.—Marine Lumber Co., capital stock \$10,000, inceptd. by R. M. Hartley of Scotts Hill, W. R. Marshall and Jos. Lytle of Monongahela, Pa., and Sadie B. Grable of Washington, Pa.

Tenn., Cookeville.—Coosawatie Lumber Co. (lately noted inceptd.) will operate mill at Talking Rock, Ga., R. F. D. (See Talking Rock.)

Tenn., Memphis.—Riel Lumber Co., capital stock \$30,000, inceptd. by F. E. Gary, W. L. Crenshaw, G. F. Riel and others.

Tenn., Memphis.—F. T. Dooley Lumber Co., capital stock \$30,000, inceptd. by F. T. Dooley, W. L. Crenshaw, T. E. Jones and others.

Va., Alexandria.—E. Madison Hall Lumber Co., capital \$100,000, inceptd.; E. Madison Hall (10th St. Wharf S. W.), Pres.; N. S. Hall, Secy.

Va., Big Stone Gap.—Cinchland Timber Corp., lately noted purchasing timber in Scott and Wise counties, advises acquired boundary of about 20,000 acres; will not develop; promotes operations; sold about 20 per cent. of boundary to Dungannon Lumber Co., J. Lake Ellis, Gen. Mgr., and latter company is building band mill at Dungan-

non. (Cinchland Timber Corp. noted inceptd., in July, as holding company; capital stock \$300,000.)

Va., Dungannon.—Dungannon Lumber Co., R. T. Irvine, Pres., advises nearly completed installation of 8-ft. band mill, daily capacity 40,000 ft., to saw boundary of 20,000-000 ft. purchased from Cinchland Timber Corp. (See Va., Big Stone Gap.)

W. Va., Huntington.—C. C. Huddleston Lumber & Supply Co. inceptd., capital stock \$50,000; R. Mankin, Pres., Oak Hill, W. Va.; H. L. Ohlinger, V.-P.; C. C. Huddleston, Secy.-Treas.; present partnership between R. Mankin and C. C. Huddleston will continue as C. C. Huddleston Lumber & Supply Co. until Jan. 1, when new company will take charge; erect 2 buildings, 42x250 ft. and 40x80 ft.; wood; galvanized-iron roof and sides; cost \$6000; R. Mankin & Co., Contrs., Oak Hill, W. Va.; cost of machinery \$2000 to \$2500.

### MINING

Ala., Birmingham.—Marble.—Canadian Marble Co., G. E. Harrison, Pres., 508 First National Bank Bldg., purchased 40-acre mineral right; plans for development not determined; lately noted inceptd., \$12,000 capital stock. (See Machinery Wanted.)

Ala., Birmingham.—Sand and Gravel.—Riddle Sand & Gravel Co., R. J. Riddle, Jr., Pres., 1037 First National Bank Bldg., will continue established plant; contemplates installing new machinery; lately noted inceptd., \$12,000 capital stock. (See Machinery Wanted.)

Ala., Cullman.—C. Kuhlo contemplates, it is reported, developing gold and silver deposits.

Ala., Sylacuga.—Marble.—Canadian Marble Co., capital stock \$12,000, inceptd. by Geo. E. Harrison and F. H. Fonville of Birmingham and others.

Ark., Little Rock.—Bauxite.—National Bauxite Co., Philadelphia, Pa., leased and will develop bauxite deposits on Rauch land; plans to ship ore.

Ark., Little Rock.—Stone.—United States Stone Co., capital \$50,000, inceptd.; develop stone quarries; Zeb Ward, Pres.; J. J. Ball, V.-P.; W. D. Cammack, Secy.-Treas.

Ark., Little Rock.—Bauxite.—National Bauxite Co., Pittsburgh, Pa., secured, it is reported, 20-year lease and exclusive right to mine bauxite on property about 8 mi. from Little Rock.

Fla., Pembroke.—Phosphate.—Coronet Phosphate Co., 99 John St., New York, purchased 750 H. P. Carols 2-cycle stationary Diesel engine for direct-connection to 500 K. W. alternator for installation in power plant of property previously noted purchased from Compagnie Generale des Phosphates de la Floride.

Ga., Atlanta.—Sand and Stone.—Utoy Stone & Sand Co., 306 Candler Bldg., acquired 104 acres sand and stone deposits; machinery installed; daily capacity, 300 tons of stone and 80 tons sand. (Lately noted inceptd., \$50,000 capital stock, by G. H. Waddell and others.)

Ky., Marion.—Zinc, etc.—Cumberland Valley Spar, Lead & Zinc Co., capital \$4000, inceptd. by Harry Watkins, G. D. Goering, J. M. Parsons and others.

La., Lorraine.—Lorraine Milling & Mining Co., capital \$50,000, inceptd. by Walter B. Randall and others.

Mo., Alba.—Lead and Zinc.—E. L. Raiston, D. C. Mosier and Arthur Evans contemplate installing additional machinery and enlarging operations at Sunflower mine.

Mo., Carl Junction.—Lead and Zinc.—J. W. Jackson and A. Rounds leased, it is reported, 10 acres land known as Vinegar Hill and will develop.

Mo., Hollister.—Zinc.—L. H. DeMill and others, Joplin, leased, it is reported, Richardson mine near Hollister and will install mill.

Mo., Neck.—Lead and Zinc.—S. F. Jones, Edward Foster and Chas. Hart of Joplin will, it is reported, develop mining property.

Mo., Chitwood.—Lead and Zinc.—Geo. H. Jocelyn, 105 Pearl St., Joplin, Mo., is reported to improve plant and develop Hoo Hoo mine. Okla., Miami.—Bluebird Mining Co., capital stock \$20,000, inceptd. by L. C. Church and J. S. Mabon of Miami and John E. Carson, Oklahoma City.

S. C., Greenville.—Mica.—R. L. West, Route No. 2, will, it is reported, develop mica deposits.

Tenn., Memphis.—Sand.—Wolf River Sand Co., capital \$45,000, inceptd. by V. A. Cordes, Clarence Colby, P. H. Patton and others.

### MISCELLANEOUS CONSTRUCTION

Ark., Marion.—Levees.—St. Francis Levee Board, O. N. Killough, Pres., will construct 1,000,000 cu. yds. levees; bids until Dec. 22; B. G. Covington, Ch. Engr.; lately noted to enlarge levee work and proposing to issue \$150,000 bonds. (See Machinery Wanted.)

Ark., Newport.—Levee.—Village Creek and White River Levee Dist., Geo. R. Hays, Secy., ask bids until Jan. 5 for proposed construction of about 15 mi. levee along White River. (See Machinery Wanted.)

Fla., Jacksonville.—Filling.—Board of Bond Trustees, Frank Richardson, Chrmn., will fill in back of Bulkhead and around new power plant at Talleyrand, and repair present bulkhead; about 50,000 cu. yds. excavation; bids until Dec. 22; L. D. Smoot, Ch. Engr., Engineering Bldg., Jacksonville. (See Machinery Wanted.)

Fla., Palatka.—Docks, etc.—Clyde Steamship Co., Pier 36, N. R., New York, will improve, for landing purposes, property lately noted leased. W. M. Tupper, Supt., Jacksonville, Fla., states will repair old buildings and dock, and probably build shed over portion of docks; total cost within \$3000.

Fla., Passagrille.—Seawall.—Town is reported to have voted \$3500 bonds for seawall. Address Town Clerk. (Lately noted.)

La., Donaldsonville.—Wharf.—City will, it is reported, construct wharf building on Mississippi River at head of St. Patrick St.; Commission Council understood to receive bids until Dec. 6 for construction and to remove present wharf structure.

La., New Orleans.—Block Signals.—Louisiana Railway Co. is reported to have ordered Yazoo & Mississippi R. R., A. H. Egan, Gen. Supt., Memphis, Tenn., to install and operate block signals between New Orleans and Wilson at rate of 20 mi. per year.

La., New Orleans.—Block Signals.—Louisiana Railway Co. is reported to have ordered Texas & Pacific Ry., C. H. Chamberlin, Ch. Engr., Dallas, Tex., to install and operate block signals on main line between New Orleans and Louisiana-Texas State line.

Miss., Bay St. Louis.—Seawall Addition.—Bond Commrs., Jas. F. Cazeneuve, Chrmn., let contract J. W. Mead to build concrete footing to old seawall; work consists of 8-ft. piling, tongue and groove, 2 ft. away from wall and connected with wall by cover of concrete. (Call for bids lately noted.)

Miss., Vicksburg.—Levees.—Mississippi River Com., J. A. Woodruff, Maj., Engrs., will construct about 51,000 cu. yds. levee work; bids until Dec. 6.

Miss., Vicksburg.—Levees.—Third Mississippi River Dist. Engr. reported to have let following contract for levees: Donovan & Daley of Lake Providence, La., banquettes work, 17,000 yds., at Salem, La.; Robt. Nicholson, Lake Providence, La., 15,000 yds. levee work at Willow Lake, Ark.; H. B. Blanks, 13,000 yds. at Seven Oaks and Hole-in-the-Wall, Ark.

N. C., Spray.—Steam Plant.—Marshall Field Co. contemplates building \$150,000 consolidated steam plant to furnish power to cotton mills company controls.

S. C., Charleston.—Piers.—Clyde Steamship Co., Pier 25, North River, New York, contemplates, it is reported, construction of 2 additional piers, making total of 5 new terminal piers; G. A. Pettengill, acting agent at Charleston. (Other piers heretofore reported.)

S. C., Charleston.—Dredging.—U. S. Engrs.' office, G. P. Howell, Maj., Engrs., asks bids until Dec. 31 for dredging in Winyah Bay. (See Machinery Wanted.)

S. C., Columbia.—Spillway Dam, etc.—Lake View Investment Co., F. D. Kendall, Chrmn. of Com., will construct spillway dam, flume, combined walkway and retaining wall for swimming pool, and light steel bridge, 80-ft. span; bids until Dec. 18; T. C. Hamby, Consult. Engr., 1302 Main St., Columbia. Lately noted to develop Dent's Pond property on Columbia Rd., construct swimming pool, etc. (See Machinery Wanted.)

Tenn., Memphis.—Nashville, Chattanooga & St. Louis Ry., H. McDonald, Ch. Engr., Nashville, is preparing plans and specifications for interlocking system at Aulon Crossing; understood cost to be divided between Nashville, Chattanooga & St. Louis Ry., Southern Ry. and Illinois Central R. R.

Tex., Athens.—Dam.—Koon Creek Klub, T. L. Powell, Secy., 120 Commonwealth National Bank Bldg., Dallas, Tex., will construct dam; bids until Dec. 20. (See Machinery Wanted.)

Va., Richmond.—Heating Plant.—Richmond College has plans for hot-water heating plant, etc. (See Water-works.)

### MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Hardware.—Knight Hardware & Electric Co., capital stock \$20,000, inceptd.; R. W. Knight, Pres.-Treas.; Elliott Knight, V.-P.; Karl Platowsky, Secy.

Ark., Russellville.—Plumbing.—Russellville Plumbing Co., capital \$10,000, inceptd.; W. J. White, Pres.; Jas. M. Ball, V.-P.; J. W. White, Treas.; Lewis Ragsdale, Secy.

D. C., Washington.—Publishing.—Tete-a-Tete Publishing Co., Granville C. Bradford, Mgr., Tete-a-Tete Bldg., recently noted to remodel and equip northeast corner of 8th and G Sts., will install power electric pump and boiler for vacuum steam-heating system. (See Machinery Wanted.)

Ky., Lexington.—Tobacco Redrying.—Kentucky Redrying Co. is reported to build \$25,000 tobacco handling plant; equipment to include boilers.

Ky., Louisville.—Cleaning.—Empire Cleaning Works, capital stock \$1500, inceptd. by Arthur Mattingly, L. H. Holzer and John W. Davis.

La., New Orleans.—Steamship Line.—Central American & Mexican Steamship Co., capital \$3,000,000, organized with John B. Cefalu, Pres.; Ed. J. Reiss, V.-P.; I. Z. Mason, Treas.; A. J. DeWolf, Secy.; to operate 4 steamships for fruit trade of 6 or more ports of Central America, extending into Mexico; New Orleans to be home port.

Miss., Pascagoula.—Marine Railway.—Maj. C. Keller, U. S. Engr. office, Mobile, Ala., writes to Manufacturers Record: "Preparations in progress looking to construction marine railway on U. S. Reservation; site on west bank Pascagoula River opposite Pascagoula; intention to construct railway having capacity to dock any of dredges or other Government plant in this district; largest boat to be docked, displacement about 800 tons." Government lately completed shipyard at railway site.

Mo., Cape Girardeau.—Publishing.—Cape Girardeau Publishing Co., capital \$7000, inceptd. by C. H. Bishop, A. J. Flentges and H. E. Alexander.

Mo., Kansas City.—Laundry.—Hyde Park Hand Laundry Co., capital \$18,000, inceptd. by C. H. Williams, Mrs. Carrie M. Williams and C. E. Wood.

N. C., Roanoke Rapids.—Publishing.—Herald Publishing Co., capital \$5000, inceptd. by J. T. Chase, J. W. House, C. Wyche and others to publish Roanoke Rapids Herald; also for job printing.

Okla., Lindsay.—Hardware.—Vaughan Hardware Co., capital \$7500, inceptd. by W. O. Norvill of Lindsay, T. A. Vaughan, Oklahoma City, and Sard S. Reed, Pauls Valley.

S. C., Fairfax.—Hardware.—Lightsey Bros. Hardware Co., capital \$5000, inceptd. by W. M. Lightsey and J. H. Lightsey.

S. C., Galivants Ferry.—Steamship Line.—Little Pee Dee Line of Steamers, capital \$3000, inceptd. by Geo. J. Holliday of Galivants Ferry, J. A. Atkinson and D. A. Lawrimore of Jordanville, S. C.

Tenn., Chattanooga.—Glensy Co., authorized capital \$10,000, inceptd. by S. E. Drake, Geo. Talliaferro, C. H. Ellis and others.

Tex., Fort Worth.—Laundry.—Acme Laundry Co., C. Wheeler, Pres., let contract to Bryce Building Co. to erect addition to laundry; cost \$18,000.

Tex., Galveston.—Cresosoting.—International Cresosoting Co. will, it is reported, increase capital stock from \$300,000 to \$500,000; operates cresosoting plants at Beaumont and Texaslana; proposes enlarging operations; general offices at Galveston.

Va., Martinsville.—Stock Farm, etc.—Horse Shoe Stock Farm, Pauull Rucker, Pres., will conduct stock farm and dairy; equipment installed. (Lately noted inceptd., \$153,000 capital stock.)

Va., Richmond.—Publishing.—Presbyterian Committee of Publication, 6th St., between Broad and Church Sts., will, it is reported, erect building; 4 stories; site 61x115 ft.

W. Va., Terra-Alta.—Bottling.—Iron-Magnesium Springs Co. organized; C. M. Crane, Pres.; Geo. Pugh, V.-P.; L. Geo. Beerbower, Secy.; J. W. Whitaker, Treas.; operate bottling plant. (Lately noted inceptd., \$50,000 capital stock.)

### MISCELLANEOUS FACTORIES

Ala., New Decatur.—Brooms.—Tennessee Valley Broom Factory, M. J. F. Weaver, Mgr., will, it is reported, establish plant.

D. C., Washington.—Hemmick Mfg. Co., \$100,000 capital stock, inceptd. by Christian Hemmick, 2306 Massachusetts Ave.; J. E. Muehlisen and Edw. J. Post.

Fla., Jacksonville.—Medicine.—Ganby-Walters Co. is reported organized with H. C.



Schrader Prest. and E. H. Anderson Mgr. to establish plant to mfr. proprietary medicines, extracts, etc.

Fla., Jacksonville—Naval Stores.—Peninsular Naval Stores Co. will increase capital stock from \$1,000,000 to \$1,600,000.

Fla., Miami—Monumental Work.—Marbleized Cement & Monumental Co., Frank Spencer, Prest. and Mgr., Ave. C and 10th St., will establish plant to produce marble, granite and monumental work, imitation and natural. (See Concrete and Cement Plants.)

Ga., Gainesville—Bottling.—Gainesville Coca-Cola Bottling Co., capital stock \$10,000, inceptd. by W. G. Bolton, Herbert F. Haley and C. W. Leonard.

Ga., Macon—Automobile Self-starters, etc. Lelison Self-starter Co., capital stock \$50,000, inceptd. by Thos. N. Baker and John S. Schofield of Macon and W. S. Anderson, Los Angeles, Cal.; mfr. self-starters for automobiles, trucks, vehicles and gas engines.

Ga., Savannah—Bakery.—Schafer Bakery, Jacob H. Quint, Propr., Jefferson St. and Oglethorpe Ave. Lane, is reported as having plans prepared by Cooley & Fisher of Pittsburgh, Pa., for addition to bakery; 2 stories; brick; maple floors; 2 ovens; cost about \$15,000.

Ky., Junction City—Tobacco.—Lone Knob Tobacco Co. (W. A. Reynolds) will, it is reported, install additional equipment.

Ky., Lexington—Tires and Rubber.—Ten Broeck Tire & Rubber Co., capital \$500, inceptd. by Fred L. Kountz, H. L. Lewman, W. M. Cox and others.

Ky., Louisville—Distillery.—Big Spring Distilling Co., capital \$100,000, inceptd. by Geo. Brown, A. M. Brown and Harry M. Brown.

Ky., Louisville—Biscuit.—Grocers' Biscuit Co. has permit to erect factory building at 654 S. 7th St.; brick construction; reported cost \$10,000.

Ky., Louisville—Polish.—American Stone Co. of New Albany, Ind., leased factory building, it is reported, and will install equipment to mfr. polishing powder and similar products from ground stone.

La., New Orleans—Coffee Blender and Filler, etc.—Ko-Reo Mfg. Co., capital \$50,000, organized by Martin S. Kenny, Jos. C. Holzhauser and others; will mfr. coffee blender and filler and coffee substitute from cereals grown in Louisiana.

La., New Orleans—Films.—Southern States Film Co., 27 W. 7th St., Oklahoma City, Okla., will operate plant to mfr. moving-picture films. (See Okla., Oklahoma City.)

Md., Baltimore—Shirts.—North Bros. Co., capital \$100,000, inceptd. with Jas. E. North, Prest.; has main factory at Monroe and Eagle Sts.; will also operate plant of Hanauman Mfg. Co. in Hampden.

Md., Frederick—Bakery.—Albert Schueler purchased site, it is reported, on which to erect 3-story building and equip as bakery.

Miss., Beaumont.—Brooms.—Company reported organized with E. J. Matthis, Prest.; J. H. Overstreet, Treas.; J. E. Swenson, Secy.; I. H. Cole, Gen. Mgr.

Miss., Hattiesburg—Wood Reduction.—Hattiesburg Wood Reduction Co. reorganized and increased capital stock from \$50,000 to \$100,000; rebuild burned plant; T. S. Jackson, Prest.-Mgr.; N. H. McKaney, V.-P.; G. L. Hawkins, Treas.; E. L. Grooms, Secy.

Mo., Kirksville—Medical Appliances, etc.—American Mfg. & Therapeutic Supply Co., capital stock \$12,000, inceptd. by Geo. Still, E. C. Brott and others.

Mo., St. Louis—Food Products.—Hippolite Co., capital \$12,000, inceptd. by W. H. Hippolite and G. A. Hippolite, both of St. Louis, and A. G. Anderson, Little Rock, Ark.

Mo., St. Louis—Ice-cream.—Missouri Ice-Cream Mfg. Co., capital \$1000, inceptd. by Alex. Antonopoulos and others.

Mo., St. Louis—Oxygen, etc.—St. Louis Oxygen Co., capital stock \$45,000, inceptd. by Chas. E. Mack, Eugene B. Dyer, Edward S. Hart and August H. Witte.

Mo., St. Louis—Leather.—Patton-Korndorfer Leather Co., capital stock \$20,000, inceptd. by Arthur S. Patton, H. Cary Korndorfer and E. L. Fisher.

N. C., High Point—Aeroplanes.—Frank P. Mier of American Aeroplane Co., Wilmington, N. C., contemplates, it is reported, establishing aeroplane factory.

N. C., Scotland Neck—Peanuts.—N. B. Josey Co. states plans for building peanut plant are not matured. (Lately noted.)

N. C., Wilmington—Paint and Varnish.—Atlantic Paint & Varnish Co., 21 Market St., will, it is reported, build factory. Moore-Davis Paint Co., capital stock \$20,000, will be inceptd. by Louis T. Moore, Platt W.

Davis and others to acquire and continue retail business of Atlantic Paint & Varnish Co.; occupy present building at 21 Market St.

N. C., Winston-Salem—Creamery.—E. L. Anderson is reported as considering erection of creamery.

Okla., Oklahoma City—Type.—Smith Type-shop, 217 N. Harvey, organized to take over plant of Smith Typeshop, partnership; Norman A. Smith, Prest. and Mgr.; Cornelia M. Smith, Secy.-Treas.; no machinery wanted. (Lately noted inceptd., capital stock \$15,000.)

Okla., Oklahoma City—Films.—Southern States Film Co., 27 W. 7th St., will operate plants in Oklahoma City and New Orleans to mfr. moving-picture films; install machinery, including tanks, etc.; Carl D. Pryor, Prest.; A. E. Cooper, V.-P.; P. V. Steddom, Secy.; Ralph Stults, Treas. (Lately noted inceptd., \$25,000 capital stock.)

Okla., Purcell—Toilet Requisites.—Perfecto-Superb Mfg. Co. organized; P. J. Thiel, Prest.; C. T. Rice, V.-P.; M. C. Thiel, Secy.-Treas.; mfr. toilet requisites; output not determined; machinery to include motors, rollers, mixers, etc.; erect no buildings. (Lately noted inceptd., \$5000 capital stock.)

S. C., Columbia—Typewriter Covers.—Specialty Mfg. & Sales Co., capital \$5000, inceptd. to mfr. automatic covers for typewriters, etc.; A. H. Kohn, Prest.; W. H. Greever, V.-P.; W. J. Ohl, Secy.-Treas.; plans not definitely determined.

Tenn., Clarksville—Bottling.—Adams-Wilson Co. (Erin, Tenn., until Jan. 1) partly purchased equipment for lately-noted plant to be established in leased building; bottle Gayota and soda waters; W. M. Adams, Prest.; Gary Huggins, Secy.-Treas.; W. B. Wilson, Gen. Mgr. (See Machinery Wanted.)

Tex., Dallas—Crackers and Biscuits.—Texas Cracker & Biscuit Co., 1203 Southwestern Life Bldg., inceptd.; \$150,000 capital stock, not \$15,000 as lately stated; W. A. Skinner, Prest.; T. A. Johnson, V.-P.; H. G. Alexander, Secy.-Treas.

Tex., San Antonio—Vinegar.—Pioneer Vinegar Works, capital stock \$25,000, inceptd. by J. C. Rice, J. H. Haile and Thos. E. Lyons; will occupy plant of Lyon Bros. Co., which will be enlarged, remodeled and equipped with new machinery.

Tex., New Braunfels—Brewery.—New Braunfels Brewing Co. let contract, it is reported, to erect brewery to cost about \$75,000. (Lately noted organized by E. F. Laubseher, San Antonio, and others.)

Tex., Wichita Falls—Window Glass.—Wichita Falls Window Glass Co., lately noted inceptd., \$100,000 capital stock, continues plant noted established and constructed in 1912; fully equipped; J. H. Kemp, Prest.; Frank Kell, V.-P.; J. C. Mytinger, Secy.-Treas.; W. G. Shaw, Mgr.

Va., Norfolk—Bakery.—Merchants' Bakery increased capital stock from \$25,000 to \$100,000.

Va., Richmond—Chemicals.—De Pars Chemical Co., capital stock \$12,000, inceptd. by Wm. M. De Pars of Richmond, Hugh L. Kirby of Harper's Ferry, W. Va., and Geo. F. Bradford of Pittsburgh, Pa.

W. Va., Jane Lew—Overalls, Gloves, etc.—Board of Trade, Geo. B. Waggoner, Secy., interested in proposed establishment of factory to mfr. overalls, canvas gloves and shirts. (See Machinery Wanted.)

Va., Norfolk—Bakery.—Gardner's Bakery building (lately noted) will be constructed by Wade G. Gardner, owner; mill construction; cost about \$40,000; 30-ft. front, rear 81 ft., length 149½ ft.; let machinery contract; cost, including ovens, \$15,000; daily capacity, 50,000 loaves bread and 7 tons cake; R. E. Mitchell, Archt.

## MOTORS AND GARAGES

D. C., Washington—Garage.—Thos. Arnes has permit to erect private garage on Kingle Rd. near Macomb St. N. W.; cost \$5000; Waddy B. Wood, Archt., 816 Connecticut Ave. N. W.; Dorsey E. Nichol, Contr., 4321 Georgia Ave. N. W.

Ky., Lexington—Garage.—Mrs. Jennie Withers Smith has permit to erect garage and automobile salesroom to cost \$11,000; to be occupied by Commercial Auto Co.; F. J. Manley, Archt.

Ky., Louisville—Motors.—Louisville Motor Co., capital \$5000, inceptd. by W. P. Gray, C. M. Logan and others.

Ky., Louisville.—Motor Cars.—Louisville Motor Co., capital stock \$5000, inceptd. by R. T. Durett and W. P. Gray, Louisville, and C. M. Logan, Cleveland, O.

Mo., St. Louis—Automobile Display and

Salesroom.—Frederick W. Drosten reported to have purchased 3-story building on site 30x110 ft. at 20th and Locust Sts., and will remodel; erect 3-story addition, 30x30 ft., on Locust St. front; first story for salesroom with special display windows; heating apparatus; elevators; estimated cost, \$40,000; Albert B. Groves, Archt., St. Louis.

Tenn., Nashville—Automobiles.—Woods Electric Vehicle Co., capital stock \$3000, inceptd. by Leonard H. Dodd, W. B. Frost, Felix C. Dodd and others.

Tex., Houston—Motors.—Carr Motor Co., capital stock \$10,000, inceptd. by Robt. C. Carr, Robt. E. Goree and A. G. Ruggles.

Va., Norfolk—Garage.—Central Garage, capital \$15,000, inceptd.; J. L. Gay, Prest.; Osie H. Gay, Secy.

Va., Norfolk—Garage.—Granby Street Garage & Storage Corp., maximum capital stock \$10,000, inceptd.; B. Nevelle, Prest.; E. F. Mitchell, Secy.

W. Va., Bluefield—Garage.—D. G. Lilly is reported to erect garage; brick; 42x55 ft.; 2 and probably 3 stories; first and second stories to be occupied by Appalachian Garage Co., which will install repair shop.

W. Va., Wheeling—Automobiles.—Reo Motor Sales Co., capital stock \$10,000, inceptd. by T. Herbert Bachman, W. A. Gullette, Geo. W. Yeago and others.

## RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ky., Princeton.—Illinois Central R. R., A. S. Baldwin, Ch. Engr., Chicago, Ill., purchased, it is reported, 16 acres at Princeton as site for roundhouse; reported to expend \$70,000 for roundhouse and other improvements.

W. Va., Pennsboro.—Lorana R. R. Co., M. K. Duty, Prest., contemplates erecting and equipping shops.

W. Va., Williamson.—Norfolk & Western R. R., J. E. Crawford, acting Ch. Engr., Roanoke, Va., is reported as preparing to construct shops for building and repairing steel cars, 22-stall roundhouse, etc.

## ROAD AND STREET WORK

Ala., Anniston.—Calhoun county will expend \$4000 to construct 2 mi. State-aid road (macadam) between Piedmont and Jacksonville; W. S. Keller, State Highway Engr., Montgomery; contract lately noted let to Goodrich & Crinkley, Harriman, Tenn., and Anniston.

Ala., Columbiana.—Shelby County Comms., considering construction of its portion of Birmingham to Vandiver Highway. (See Ala., Birmingham.)

Ala., Birmingham.—Jefferson County Comms., Birmingham, and Shelby County Comms., Columbiana, considering construction of Birmingham to Vandiver Highway; each county to build to county line and connect.

Ala., Mobile.—City Comms., considering twelfth paving venture, comprising about 2 mi. asphaltic concrete paving 2 in. thick on 4 in. concrete foundation, estimated to cost \$70,000; proposed to improve 1 mi. Spring Hill shell road, 5 blocks on Congress St., between Royal and Claiborne; 5 blocks on Adams St., between Royal and Claiborne; 1 block on Claiborne St., between State and Adams St., and 1 block on Jackson St., between State and Adams.

Fla., Bradentown.—City voted \$95,000 bonds for improvements to include street and sidewalk paving; Geo. B. Wallace, Mayor; lately noted. (See Water-Works.)

Fla., Daytona.—City is reported as considering voting on \$175,000 bonds to construct sewer system.

Fla., Jacksonville.—City will pave Julia St. from Bay to Forsyth St. with tarvia on present brick.

Fla., Manatee.—City contemplates, it is reported, voting on \$100,000 bonds for street paving, sewers and water-works. Address The Mayor.

Fla., Passagrille.—Town is reported to have voted \$1000 bonds for street crossings and \$1000 bonds for street and alley improvements. Address Town Clerk. (Lately noted.)

Fla., Plant City.—Greene Realty Co. let contract Plant City Concrete Co. to construct 6000 sq. ft. concrete sidewalks.

Fla., Port St. Joe.—City voted \$10,000 bonds to pave streets, etc. T. Howard, Mayor.

Fla., Sarasota.—Manatee county votes Jan. 12 on \$125,000 bonds for road construction and bridge over Manatee River. Address County Comms.

Fla., St. Petersburg.—Pinellas County Commissioners, Clearwater, Fla., will invite bids

for about 2 mi. brick paving on 9th St. North, 9th Ave. to John's Pass Road.

Fla., Tampa.—City let contracts to pave with brick streets aggregating 25,422 sq. yds.; to Edwards Construction Co., Tampa, Nebraska Ave., Whiting to Water St.; Georgia Engineering Co., Augusta, Ga., 22d St. from 1st to 9th Ave., 9th Ave. from 21st to 23d St., and 8th Ave. from 22d to 24th St.; Alabama Paving Co., Birmingham, Ala., Cass St., from Central to Florida Sts.; total cost about \$45,000. (Further details lately noted.)

La., Baton Rouge.—W. E. Atkinson, engineer in charge highway division, State Board of Engrs., invites bids, it is reported, to construct Baton Rouge-Hope Villa Highway; gravel; length 14 mi.

La., Columbia.—Highway Dept., State Board Engrs., New Orleans, let contract B. D. Wood, 137 Carondelet St., New Orleans, at \$20,222 for Rayville highway, 4 mi., in Caldwell parish. W. E. Atkinson, State Highway Engr.

La., Donaldsonville.—Ascension Parish Police Jury let contract L. P. Sawyer, Alexandria, to construct 22 mi. gravel roads from Iberville parish line to about 3 mi. below Donaldsonville.

La., Lafayette.—State Engrs., New Orleans Court Bldg., let contract Worthington Construction Co., Brookhaven, Miss., at \$47,513 to construct 16 mi. road in Lafayette parish. (Lately noted.)

La., Shreveport.—City will pave Wall St. from Marshall to Market Sts. with Dolarway paving; bids until Dec. 9; L. H. Baker, Secy.-Treas. (See Machinery Wanted.)

Md., Hagerstown.—State Roads Com., Garrett Bldg., Baltimore, forwarded plans to Washington County Comms. for 3½ mi. road from Smithsburg to State line, where it will connect with Pennsylvania State road.

Md., Hagerstown.—State Roads Com., Garrett Bldg., Baltimore, approved plans by Ernest R. Darby, Washington County Surveyor, Hagerstown, for 3½ mi. road from Smithsburg to Pennsylvania State line to connect with Pennsylvania State road at Waynesboro; estimated cost \$14,000.

Miss., Kosciusko.—Highway Comms., W. B. Potts, Prest., Supervs. Dist. No. 1, Attala county, asks bids until Jan. 5 (changed date from Jan. 6) for proposed 17 mi. road improvement; novaculite, chert, gravel or crushed stone finishing surface, roller compacted; probably concrete for smaller bridges and large culverts; lately noted. (See Machinery Wanted.)

Miss., Meridian.—Lauderdale County will vote on \$25,000 bonds for road improvement in Beat No. 4.

Miss., New Albany.—City voted \$25,000 bonds to improve streets, construct sewer system and extend water-works; S. W. Bevil, City Clerk. (Lately noted.)

Miss., Pascagoula.—Road District No. 5 of Jackson county contemplates issuing \$5000 road bonds. Address County Supervisors.

N. C., Granite Falls.—Lovelady township of Caldwell county voted \$25,000 bonds to construct roads. Address County Comms. (Lately noted.)

N. C., Hendersonville.—City will construct about 20,000 yds. paving, 10,000 lin. ft. curbing, and excavate about 5000 cu. ft. dirt in grading; bids until Dec. 18; G. W. Justice, City Business Mgr. (See Machinery Wanted.)

N. C., Mechanicsville.—B. C. Lambeth is reported interested in construction of sand-clay road from Mechanicsville to Davidson county line.

N. C., Shelby.—Highway Com. No. 6 Township of Cleveland County, J. F. Roberts, Chrm., let contract J. T. Platt, Statesville, to construct boulevard from Shelby via Cleveland Springs to Buffalo Creek. (Call for bids lately noted.)

N. C., Winston-Salem.—Forsyth county, W. B. Stafford, Chrm., Highway Com., will expend \$80,000 to resurface Waughtown Rd. and build soil roads in other parts of State; by contract labor; D. W. Harmon, Highway Engr. (Lately noted.)

Okla., Tulsa.—City let contract F. P. McCormick, Tulsa, to construct 20,000 sq. yds. paving, and to C. H. Frye for 8000 sq. ft. walls; C. T. Hughes, City Engr. (Lately noted.)

S. C., Columbia.—City let contract Jacobs-Gibble Construction Co., Durham, N. C., at \$16,349 for 9180 sq. yds. sidewalk paving and 27,970 lin. ft. curbing in Wales Gardens; John McNeal, City Engr. (Call for bids lately noted.)

Tenn., Blountville.—Sullivan county reported to probably vote in Jan. on \$100,000 bonds to complete road construction. Address County Comms.

Tenn., Cleveland.—Bradley County Comms., will improve roads; appropriated \$100,000.

Tenn., Huntingdon.—City is reported to have let contract to Slayden & McNabb to construct concrete walks on both sides of W. Paris St. from square to railroad.

Tenn., Mountain City.—Johnson County Good Roads Assn. organized; adopted resolution to issue \$150,000 bonds and proposes constructing 2 roads across county, one to be extension of crest of Blue Ridge highway from Boone, N. C., across county to Sullivan county line at top of Holston Mountain, and other to begin at Virginia line at Laurel Creek, above Damascus, and extend to Mountain City and Butler.

Tex., Alpine.—Brewster county votes Dec. 20 on \$80,000 bonds to construct roads. Address County Comms. (Lately noted.)

Tex., Belton.—Road Dist. No. 2 Bell county is reported to have voted \$50,000 bonds to construct roads. Address Road Comms. Dist. No. 2.

Tex., Belton.—City will pave portions of Main St., Central Ave., Ave. "A," East and Penelope Sts.; bids received on following: Vitrified brick with cement filler, vitrified brick with cement grout filler, granitoid concrete, asphaltic concrete, bitulithic, creosoted pine block pavement with sand and oil filler, concrete curbs and cement gutters; each to have 5-in. concrete foundation except granitoid concrete pavement; bids until Dec. 10; C. E. Leonard, City Engr.; F. C. Flewellen, City Engr. (See Machinery Wanted.)

Tex., Centerville.—Leon county will issue \$50,000 road bonds; L. T. Dashiell, County Judge.

Tex., Conroe.—Montgomery county Road Dist. No. 1 bond issue of \$100,000 (lately noted) is available for 40 mi. graveled road construction previously noted let to Cobb & Gregory, Dallas, Tex.; W. M. Williams, County Judge.

Tex., Dallas.—City will pave portions of Main, Hall, Cochran, Browder, Lamar and Laws Sts.; separate bids on following materials: Creosoted pine blocks, bitulithic, asphaltic concrete, Bermudez bituminous concrete, Uvalde rock asphalt, vibrolithic, concrete curbs, concrete gutters, combination concrete curb and gutter and storm sewer; bids until Dec. 15; J. B. Winslett, City Secy. (See Machinery Wanted.)

Tex., Groesbeck.—Dist. No. 4, Limestone county, let contract Culum & Dougherty, Houston, to construct 55 mi. macadam road; A. M. Blackmon, County Judge. (Call for bids lately noted.)

Tex., Houston.—City will pave McKinney Ave. from Main St. to Broadway. E. E. Sands, City Engr.

Tex., Mexia.—City, G. W. Perkins, Secy., will expend \$80,000 (including previously noted \$30,000 bonds) on paving; bids received until Jan. 1; H. S. Bennett, City Engr., in charge. (See Machinery Wanted.)

Tex., Pecos.—Comms. Precincts Nos. 1 and 4 of Reeves county petitioned County Comms. for authority to vote on \$100,000 bonds to construct roads.

Tex., Strawn.—Strawn Dist. of Palo Pinto county is reported to have voted \$50,000 bonds to construct roads. Address Dist. Comms.

Tex., Sulphur Springs.—City contemplates voting on bonds to pave public square. Address The Mayor.

Tex., Temple.—City is reported to have let contract O. C. Chapin, Kansas City, Mo., to pave Adams Ave., 1st to 13th St., with vitrified brick on 4-in. concrete base.

Tex., Waxahachie.—City is reported to have let contract to pave N. Rogers St. Address The Mayor. (Lately noted.)

Va., Fairfax.—Fairfax county voted \$90,000 bonds to construct roads in Mount Vernon Dist. Address County Comms. (Lately noted.)

### SEWER CONSTRUCTION

Ark., Walnut Ridge.—City engaged Frank L. Wilcox of St. Louis, Mo., as engineer for sewer system and water-works; estimated cost \$70,000.

Fla., Bradenton.—City voted \$95,000 bonds for improvements to include sewer system extension; Geo. B. Wallace, Mayor; lately noted. (See Water-works.)

Fla., Jacksonville.—Comms. Public Works, Sigmund Hess, Chrmn., ask bids until Dec. 22 on 1800 cu. yds. stone; 1800 cu. yds. slag; 168.20 ft. galvanized corrugated iron pipe, Schedule A; 4500 ft. galvanized corrugated iron pipe, Schedule B; delivery during ensuing year. (See Machinery Wanted.)

Fla., Manatee.—City contemplates, it is reported, voting on \$100,000 bonds for sewers, water-works and street paving. Address The Mayor.

Ky., Lexington.—City Comms. let contract Central Construction Co., 362 E. Main St., Lexington, at \$35,000 to construct main trunk sanitary sewer for North Side.

La., Hammond.—City will vote on \$16,000 bonds for sewer construction. Address The Mayor. (Lately noted.)

La., Plaquemine.—City considering bond issue for sewer system and water-works and consulted with C. A. Rees, Engr., Shreveport.

Md., Frederick.—Hood College Building Committee received report from Harrison & Shriver, Engrs., Philadelphia, Pa., on drainage of college property, sewage disposal, etc.

Md., Baltimore.—City will construct hoisting screens at Sewage Pumping Station, Sanitary Contract No. 112, and lateral sewers and house connections Dist. No. 42, Sanitary Contract No. 124; bids until Dec. 17; Harry W. Rogers, Secy. Sewerage Com. (See Machinery Wanted.)

Miss., New Albany.—City voted \$35,000 bonds to construct sewer system, etc. S. W. Bevil, City Clerk. (See Road and Street Work.)

Mo., St. Louis.—Chas. A. Moreno, Sewer Commr., is preparing ordinance authorizing Board of Public Improvements to let contract for \$2,000,000 joint district sewer to relieve present Mill Creek Valley sewer; proposed to divide work into 4 separate contracts.

N. C., High Point.—City, Fred N. Tate, Mayor, will extend sewer outfall line 1800 ft. and sewage-disposal plant; bids until Dec. 22 (extended date); lately noted. (See Water-works and Machinery Wanted.)

Okla., Atoka.—City voted \$30,000 bonds to construct sewer system; C. M. Neal, Mayor. (Lately noted.)

Tex., Houston.—City let contract Hardman & Nelson at \$18,524 to construct Preston Ave. storm sewer.

Tex., Houston.—City will construct outlet to Austin St. storm sewer; bids until Dec. 13 at office of E. B. Bonney, City Secy.; E. E. Sands, City Engr.; contracts for extension to Austin St. and other sewer extensions lately noted let. (See Machinery Wanted.)

Tex., Waco.—City let contract Ockander Bros., Waco, at \$11,250 to construct sewer in Washington, Austin and Franklin Sts. to connect with Mary St. sewer.

Va., Richmond.—Richmond College has plans for 1½ mi. sewer to river; cost \$30,000. (See Water-works.)

W. Va., Huntington.—A. B. Maupin, City Engr., prepared plans for Fourth Ward trunk sewer and its tributaries; about 10,000 ft. pipe; main trunk, 6 ft. in diam.; cost about \$100,000; City Engr. will also soon complete plans to extend 7th St. sewer to Boldt Glass Co.

### TELEPHONE SYSTEMS

Ky., Lindsay.—Cumberland River Telephone Co., capital \$1000, inceptd. by Jas. Hawn, Philip Fox, G. M. Faulkner and others.

Tenn., Columbia.—Cumberland Telephone & Telegraph Co., Louisville, Ky., will, it is reported, build exchange.

Tex., Houston.—Southwestern Telephone & Telegraph Co. will erect \$14,000 addition to Hadley exchange.

Tex., Westhoff.—Bello Telephone Co. increased capital stock from \$1000 to \$4000.

W. Va., Henry.—Clay Telephone Co., capital stock \$5000, inceptd. by B. C. Eakle, P. M. Summers, Jas. Reed and others.

### TEXTILE MILLS

Ala., Demopolis.—Cotton Yarns.—Demopolis Cotton Mills, capital \$30,000, organized; W. W. Brame, Pres.; Jas. S. Bradbury, Mgr.; succeeds Elmore Cotton Mills; making improvements to machinery and buildings.

Ga., Columbus.—Hosliery.—Perkins Hosliery Mills applied for new charter, including increase of capital stock from \$300,000 to \$750,000; has no present plans for improvements or enlargements.

Mo., St. Louis.—Bleach and Dye.—St. Louis Bleaching & Dye Works, capital stock \$100,000, inceptd. by Oliver J. Grace, J. C. Leadbetter and others; engaged architect to prepare plans and specifications to construct building; will install machinery for bleaching, dyeing and finishing cotton goods; annual capacity, 22,000,000 yds.

Mo., St. Louis.—Cordage.—American Mfg. Co. has permit to erect factory addition; brick construction; reported cost \$5000.

S. C., Anderson.—Cotton Duck.—Equinox Mill Co., capital stock \$500,000, inceptd. by W. H. Wellington, Horace S. Sears and others of Boston; will build 2-story 80x65-ft. and 1-story 80x90-ft. mill addition; Archts., F. H.

& J. G. Cunningham, Greenville, S. C.; Contr., Gallivan Building Co., Greenville; ordered new machinery, mainly replacing present equipment, to provide for duck manufacture; will have 18,000 spindles and 428 looms; cost of replacing machinery \$150,000; cost of building additions, cottages, etc., \$25,000. (Wellington & Sears, Boston, lately noted purchasing Cox mill property, etc.)

### WATER-POWER DEVELOPMENTS

Ark., Arkadelphia.—Arkansas Power Co., capital stock \$500,000, inceptd.; H. C. Couch, Pres.; J. H. Meek, V. P.; J. W. Lee, Treas.; J. L. Longino, Secy.; all of Little Rock; proposes to construct hydro-electric plants at Arkadelphia, Malvern and other locations.

Fla., Ocala.—J. D. Robertson proposes to construct hydro-electric plant at Stokes Ferry, on Withlacoochee River; approximate cost \$300,000; no details determined.

Ga., Lawrenceville.—City contracted with J. B. McCrary Co., Atlanta, to furnish electricity from hydro-electric power plant in Anniston, construct dam and power-house, install water-wheels and generator and switchboard; also erect transmission line 30 mi. long, passing through Logansville, Grayson and Snellville; machinery to be purchased. Edw. Tarpley, Supt.

W. Va., Logan.—New York, Toledo and London capitalists reported planning to construct hydro-electric plant of 6 turbine units of 5000 K. W. each (30,000 K. W.) on Main Island Creek, Buffalo and Dingess Run, Guyan River, Godfrey M. S. Tate, Logan, being manager.

### WATER-WORKS

Ark., Van Buren.—Van Buren Water Co. will issue \$70,000 bonds for improvements to water-works; about \$25,000 to construct dam, across Lee's Creek, of reinforced concrete; about 300 ft. long; remainder of funds to improve pump-house and further extend water system.

Ark., Walnut Ridge.—City engaged Frank L. Wilcox of St. Louis, Mo., as engineer for water-works and sewer system; estimated cost \$70,000.

Fla., Auburndale.—C. O. Pinch, Atlanta, Ga., submitted proposition, it is reported, to construct water and light plants.

Fla., Auburndale.—T. I. Woods, Lakeland, Fla., submitted proposition, it is reported, to construct water and light plants.

Fla., Bradenton.—City voted \$95,000 bonds for improvements to include extension of water and sewer systems and street and sidewalk paving; Geo. B. Wallace, Mayor; lately noted.

Fla., Daytona Beach.—E. G. Pearson petitioned for franchise for water-works; probable cost, \$50,000; H. F. Thompson, Town Clerk.

Fla., Jacksonville.—Bond Trustees are reported as considering plans for station in which to install 12,000,000-gal. pump lately noted purchased.

Fla., Manatee.—City contemplates, it is reported, voting on \$100,000 bonds for water-works, sewers and street paving. Address The Mayor.

Fla., Passagrille.—Town is reported to have voted \$3000 bonds to complete water-works. Address Town Clerk. (Lately noted.)

Fla., Pensacola.—Board of Comms. asks bids until Dec. 23 on air compressor, etc., for water-works pumping station; C. W. Eggart, City Clerk. (See Machinery Wanted.)

Ky., Carlisle.—City reported to have engaged Arthur M. Morgan, Engr., Chicago, to prepare plans and specifications for water-works; voted \$30,000 bonds. J. H. Frey, Mayor. (Lately noted.)

La., Hammond.—City will vote on \$16,000 bonds for water-works extension. Address The Mayor. (Lately noted.)

La., Plaquemine.—City considering bond issue for water-works and sewer system; has consulted with C. A. Rees, Engr., Shreveport.

Md., Baltimore.—City will construct distribution mains, steel pipe or reinforced concrete pipe, etc., between Lakes Montebello and Clifton, Improvement of Gunpowder Supply, Contract No. 17; bids by Board of Awards at office City Register, City Hall, until Dec. 24; about 20,000 cu. yds. earth and 500 cu. yds. rock excavation; 5017 lin. ft. 108-in. and 3000 lin. ft. 84-in. steel or reinforced concrete pipe, specials, concrete, shapes, castings, etc.; Ezra B. Whitman, Water Engr. (See Machinery Wanted.)

Miss., New Albany.—City voted \$35,000 bonds to extend water-works, etc.; S. W. Bevil, City Clerk. (See Road and Street Work.)

Miss., Vicksburg.—City plans to construct water-works. Address The Mayor. (Previously reported as proposing \$500,000 bond issue.)

Mo., St. Louis.—Chas. E. Swingley, Fire Chief, recommended construction of pumping station costing \$1,231,915 in downtown section of city to provide high-pressure water service.

N. C., High Point.—City, Fred N. Tate, Mayor, will construct 3,000,000-gal. concrete-lined clear-water basin, fireproof pump-house, concrete valvehouse, install two 1000-gal. per minute electric-driven direct-connected centrifugal pumps, all necessary cast-iron piping, valves, special castings and connections, with electrical interior wiring and control devices; bids (extended date) until Dec. 22; lately noted. (See Machinery Wanted.)

Tex., Abilene.—Abilene Water Co. (lately noted to rebuild damaged reservoir) has not settled date of opening construction bids; concrete and earth work on repairs to Lytle Lake dam; includes core wall, replacement of earth work and installation of two 24-in. outlet lines, 200 ft. long each; American Public Service Co., Engr. Address A. V. Wainwright, Abilene.

Tex., Fort Worth.—City will vote on \$50,000 bonds to improve and extend water-works. Address The Mayor.

Tex., Port Lavaca.—City contemplates granting franchise to Port Lavaca Industrial Co. to construct lately-noted water-works; Wm. H. Mallory, member City Com.

Tex., Houston Heights.—City votes Dec. 15 on granting franchise to S. J. Dill & Co. of New York to furnish water, gas and light. Address The Mayor.

Tex., Laredo.—Laredo Water Co. engaged Edward Flad & Co., De Menil Bldg., St. Louis, Mo., to prepare plans and estimates for extension to water plant.

Tex., Mission.—Town proposes granting franchise for water-works and electric-light plant. Address Town Clerk.

Va., Graham.—City will invest \$15,000 to improve water system; accepted proposition of Appalachian Power Co., Bluefield, W. Va., to install electric pump and supply city reservoir by electricity; Richard Messer, State Highway Engr., Richmond, approved plans.

Va., Richmond.—Administrative Board has report of C. P. E. Burgwyn, Engr., Petersburg, who has made survey of city's water supply; rumored that report recommends improvements at settling basins, costing about \$50,000.

Va., Richmond.—Richmond College has plans for laying 3½ mi. 6, 8 and 10-in. water mains, costing \$25,000; also has plans for 100,000-gal. reservoir, reinforced concrete sewerage tank and pumping station; erect power-house to cost \$25,000 and electrical distribution system; hot-water heating plant to heat 5 buildings and care for future structures; construct 1½ mi. sewer; cost of latter, \$30,000; Carneal & Johnston, Archts., Richmond.

### WOODWORKING PLANTS

Fla., Jacksonville.—Architectural Woodwork.—Campbell-Ware Co., A. B. Campbell, Pres., 26 Baldwin Bldg., will erect plant to mfr. architectural woodwork; 96x133 ft.; iron-clad; ordinary or mill construction; cost \$6000; cost of machinery, \$6000; lately noted inceptd. \$50,000 capital stock. (See Machinery Wanted.)

Ga., Columbus.—Showcases.—Georgia Showcase Co. will rebuild main plant burned at estimated loss of \$75,000.

Ky., Hickman.—Handles.—Eric Basket Co. will, it is reported, install turning lathes to mfr. handles and lathes to mfr. veneers used in manufacturing berry baskets, etc.

Miss., Bond.—Barrels, etc.—Mills Farms Co., F. B. Mills, Mgr., Rose Hill, N. Y., contemplates building plant to mfr. barrels, crates, etc.

Mo., Joplin.—Cooperage.—Bentonville Cooperage Co., W. C. Barnhardt, Pres., Bentonville, Ark., will equip plant (lately noted purchased) to mfr. tight and slack barrels and staves. (See Machinery Wanted.)

Mo., St. Louis.—Carriages.—Moon Bros. Carriage Co., capital stock \$400,000, inceptd. by John C. Moon, Cary R. Crawford, John W. Drew and others.

Mo., St. Louis.—Bank Equipment.—St. Louis Bank Equipment Co., capital stock \$25,000, inceptd. by Wm. L. Punskey, J. B. Gander and Harry J. Smith.

N. C., Hickory.—Picker Sticks.—H. E. Clay and others are organizing company, it is reported, to mfr. picker sticks.

N. C., High Point.—Furniture.—Climax Mfg. Co., capital \$25,000, inceptd. by E. M. Kearns and others.



Tenn., Knoxville—Carriages.—L. F. Moore Carriage Co., capital \$20,000, inctpd. by K. E. Steinmetz, A. E. Mitchell, L. F. Moore and others.

Tenn., Memphis—Shingles.—Memphis Shingle Co., capital \$25,000, inctpd. by R. E. Montgomery, Jr., W. H. Burris, W. H. Lewis and W. T. McLain.

Va., Norfolk—Isaac Mahler of Western Furniture Co., Chicago, contemplates, it is reported, establishing furniture factory.

Va., Norfolk—Furniture.—Shapiro Antique Shops, maximum capital stock \$10,000, inctpd. by E. F. Shapiro, Prest.; L. J. Shapiro, Secy.-Treas.

### BURNED

Ala., Mobile.—Gulf Dry Docks Co.'s marine ways partially destroyed; estimated loss, \$18,000.

Ala., Seale.—Ed. Anderson's warehouse; Bank of Seale; reported loss, \$50,000.

Ark., Conway.—J. D. Collier's residence; loss \$3,000.

Ga., Columbus.—Georgia Showcase Co.'s main plant; estimated loss \$75,000.

Ga., Metter.—Farmers' Union Warehouse; loss \$10,000.

Ga., Waynesboro.—Pierce Blocker's residence.

Ky., Island.—Geo. W. Birk & Son's store; loss \$15,000.

La., Algiers, Station A, New Orleans.—Henry Kregler's hall and number of dwellings; total loss \$10,000.

La., Shreveport.—Hicks Co.'s office and warehouses; loss \$159,000.

Md., Cambridge.—Wm. A. Hubbard's building; Benj. McAllister's residence; loss \$10,000 to \$12,000.

Mo., Derwood.—Derwood Flouring Mills; loss \$15,000.

Mo., Sherwood.—Chesapeake Packing Co.'s plant; loss \$3,000.

Miss., Biloxi.—White Hotel.

Miss., Monticello.—J. Z. McGuffee's residence; loss \$3,000.

Miss., Woodville.—Morris H. Rothschild's warehouse; loss \$4,000.

S. C., Columbia.—Seaboard Air Line Ry.'s depot; loss \$20,000; W. D. Faucette, Ch. Engr., Portsmouth, Va.

S. C., Woodruff.—Woodruff Cotton Mills' warehouse.

S. C., Yorkville.—Victor Cotton Oil Co.'s main building; estimated loss \$30,000.

Tenn., Camden.—Mrs. Milton Fry's residence on E. Church St.; loss \$4,000.

Tenn., Marion.—L. P. Berry's residence; loss \$10,000.

Tex., Caddo Mills.—Lee & Parker's restaurant; G. L. Van Cleave's store; G. G. Barnes' store; total loss \$20,000.

Tex., Mexia.—T. A. White's residence; loss \$2,000.

Tex., Mt. Pleasant.—Seed and hull house of oil mill owned by F. C. Phillips, Greenville, Tex.; loss \$20,000.

Tex., Orange.—Amos Cladwell's residence Sholar St.

Tex., Tioga.—Bradley House; loss \$7,000.

Va., Fredericksburg.—A. W. Wallace's residence.

Va., Gether.—A. Derieux's store.

Va., Highland Springs.—Graded and high schools; loss \$20,000. Address School Trustees.

W. Va., Clarksburg.—Martin McClung's store and residence; loss \$10,000.

W. Va., Martinsburg.—Gerling building, owned by Hattie M. Geyer, Eva E. Nadenbousch and Edna C. Gerling; loss \$5,000.

### DAMAGED BY FLOOD

Tex., Georgetown.—Williamson county's bridges over North and South Gabriel River; estimated loss \$50,000. Address County Comms.

and Ernest Meres will erect store and office building.

Ga., Savannah.—Wage Earners' Loan & Investment Co., 468 W. Broad St., is reported to have plans by Percy Sugden, 29 Drayton St., Savannah, for bank, office and store building Broad and Albee Sts.; 3 stories; limestone, buff brick and terra-cotta; tile floor in bank; interior finished in marble; vaults; store on lower floor; cost \$40,000.

Md., Baltimore.—J. Chas. Linthicum & Bro., 217-19 St. Paul St., have plans by Herbert G. Crisp, 2709 St. Paul St., Baltimore, for office building and store Courtland St.; 2 stories; 43x29 ft.; contractors estimating are Walter E. Burnham, Law Bldg.; J. Henry Miller, Inc., Eutaw and Franklin Sts.; Sweetzer Linthicum, 231 Courtland St.; Geo. Bunneke & Son, 305 St. Paul St., all of Baltimore.

Okla., Pawhuska.—A. W. Hurley, Secy. Triangle Building Co., opens bids Dec. 15 to erect office and store building; triangle shape; 62x119 ft.; 3 stories; fireproof; pitch and gravel roof; low-pressure direct steam heat; cost \$35,000; J. C. Parr, Archt., 419 Oklahoma Bldg., Oklahoma City, Okla. (Lately noted to receive bids until Dec. 25.)

Okla., Tulsa.—R. T. Daniels is reported to erect office building 3d and Biston Sts.; 7 stories.

Tenn., Darden.—Bank of Darden organized with L. B. Moore, Prest.; Rev. Mr. Boren, V.-P.; Asa Davis, Cashr.; will erect brick bank building.

Tex., Abilene.—W. H. Graham receives bids until Jan. 5 to erect 6-story office building; separate bids for plumbing, heating and electric wiring; plans and specifications at office M. L. Waller, Archt., 209½ W. 8th St., Fort Worth, Tex. (W. H. Graham and others previously noted as promoting organization of company to erect building.)

Va., Lynchburg.—Lynchburg National Bank will erect building. Bank wires Manufacturers Record: "Tentative plans call for 4-story fireproof bank and office building, costing \$125,000; 40x120 ft.; Alfred C. Bossom, Archt., 366 5th Ave., New York."

### CHURCHES

Ala., Sylacauga.—First Baptist Church reported to erect building; cost \$20,000. Address The Pastor.

Ala., Talladega.—Methodist Church is reported to erect building; Rev. W. R. Battle, Chrmn. of Comm.

D. C., Washington.—Kendall & Smith, Archts., Southern Bldg., Washington, are preparing plans for building for All Saints' Episcopal Church, Anacostia Rd. (Lately noted.)

Ga., Cordele.—Baptist Church will soon let contract to erect building; cost \$25,000. Address The Pastor.

Ky., Barbourville.—Christian Church has plans for building; brick and stone; portion of building portion of structure 2 stories. Address The Pastor.

N. C., Salisbury.—St. John's Lutheran Church, Rev. M. M. Kinard, pastor, will, it is reported, have plans prepared by H. E. Bonitz, Wilmington, N. C., to enlarge church.

S. C., Greenville.—Sampson Baptist Church will erect building to replace present structure; seating capacity 1,000; cost \$9,000. Address The Pastor.

Tenn., Memphis.—Methodist church, Rev. W. A. Russell, pastor, plans, it is reported, to erect building on Parkway and Waldran Blvd.

Tenn., Nashville.—First Cumberland Presbyterian Church, Rev. H. C. Yates, pastor, will erect building.

Tenn., Whiteville.—Methodist Episcopal Church South, Rev. Mr. Maxedon, pastor, will erect building; cost \$10,000.

Tex., Ft. Worth.—First Christian Church reported as to erect \$100,000 building. Address The Pastor.

Va., Salem.—Salem Baptist Church, Rev. C. T. Herndon, pastor, will erect Sunday-school building; cost \$8,000 to \$10,000.

### CITY AND COUNTY

Fla., Ocala.—Library.—City will expend \$20,000 to erect library. Address The Mayor. (Previously noted.)

Ga., Cochran.—Jail, etc.—Bleckley County Comms. receive bids Dec. 19 (extended date) to erect jail, etc.; plans and specifications at offices of W. M. Wynne, Ordinary, and Sayre & Baldwin, Archts., Anderson and Raleigh, N. C.; lately noted. (See Court-houses.)

Ky., Bloomington.—Library.—City, it is reported, will probably erect Carnegie Library; cost \$27,500. Address The Mayor.

La., Hammond—Town Hall.—City will, it is reported, vote on \$90,000 bonds, to include \$8000 for town hall and fire-fighting apparatus. Address The Mayor.

La., Oberlin.—Jail.—Allen parish receives bids until Jan. 5 to erect courthouse and jail buildings; latter 55x44 ft.; fireproof. (See Court-houses.)

Md., Baltimore—Market.—Board of awards rejected all bids to enclose Richmond Market with glass, and will receive new bids; C. E. Stubbs, Inspector of Buildings, City Hall. (Previously noted.)

Miss., New Albany.—Jail, etc.—City will sell bonds to erect jail, install sewer system, extend water-works and improve streets. S. W. Bevil, City Clerk.

Mo., Kirkwood.—City Hall.—City is reported considering erection of city hall; J. R. Matthews, Mayor.

Mo., New Madrid — Jail. — New Madrid county reported to have voted bonds to erect courthouse and jail. Address County Comms.

N. C., Concord—Jail. — Cabarrus County Comms. will consider plans Dec. 15 to erect jail.

Okla., Atoka.—City Hall, etc.—City opens bids about January to erect city hall and fire station; 40x60 ft.; 2 stories; ordinary construction; cost \$4,000 to \$5,000; A. R. Fandree may be addressed. (Bonds lately noted voted.)

S. C., Chester — Jail. — Chester County Comms. reported considering erecting jail.

Tenn., Jackson.—City Hall.—City will vote Jan. 29 on \$115,000 bonds to erect city hall and pay indebtedness. Address The Mayor.

Tenn., Nashville.—Library.—G. H. Baskette, Chrmn. building committee Carnegie Library, will receive bids until Dec. 17 to erect North Nashville branch library; fireproof; plans and specifications at office of C. K. Colley, Archt., 38-40 Life & Casualty Bldg., Nashville. (Previously noted.)

Tex., El Paso.—Municipal.—El Paso county will vote Jan. 7 on \$250,000 bonds to erect joint municipal building; C. E. Kelly, Mayor. (Lately noted.)

Tex., Houston—City Hall, etc.—City is having plans prepared for jail and fire station, 2 or 3 stories, including basement; shower baths, etc.; cost \$100,000; also erect addition to city hall; 2 stories and basement with foundation to support 4-story structure; 65x250 ft.; fireproof vault; probably roof garden; cost \$100,000. (Lately noted.)

Tex., Paint Rock.—Jail.—Concho county defeated \$15,000 bonds to erect jail; Jas. E. Howze, County Judge. (Lately noted.)

Tex., Terrell.—City Hall.—City will, it is reported, vote Jan. 13 on \$40,000 bonds to erect city hall and \$5,000 bonds for schools. Address The Mayor.

Tex., Yorktown.—City Hall.—City will erect city hall, lately noted; 36x60 ft.; brick; tin roof; electric lighting; cost \$8,000; Kreisle & Kleuser, Archts., Austin. (See Machinery Wanted.)

Va., Richmond — Municipal Clubhouse.—City is reported as considering erection of municipal clubhouse at Byrd Park; cost about \$25,000; Carneal & Johnston, Archts., Richmond.

### COURTHOUSES

Ark., Heber Springs.—Clebaine county Comms. are inviting bids to erect courthouse; cost \$75,000.

Fla., Fort Myers.—Lee County Comms. reported as considering erection of courthouse; cost about \$100,000.

Ga., Cochran.—Bleckley County Comms. receive separate bids Dec. 19 (extended date) to erect courthouse and jail; 2 stories; former of brick; limestone trimmings; slate roof; copper dome; steel trusses, etc.; latter to contain living apartments for jailer; cellrooms two tiers high; fire and burglar-proof; cost \$35,000 and \$10,000, respectively; plans and specifications at offices of W. M. Wynne, Ordinary, and Sayre & Baldwin, Archts., Anderson and Raleigh, N. C. (Lately noted.)

Ky., Taylorsville.—Spencer County Comms. receive bids until Dec. 31 (extended date) to erect courthouse; 60x55 ft.; practically fireproof; concrete foundation up to and including second floor; brick walls; tile and composition roof; steam heat; plans and specifications in County Clerk's office; Falls City Construction Co., Archt., Louisville, Ky.; Samuel K. Baird, County Judge. (Lately noted.)

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

D. C., Washington.—W. C. Blundon, 15 Rhode Island Ave. N. W., has plans by A. E. Landvoigt, 1338 G St. N. W., Washington, for 2-story apartment-house; main building 60x40 ft.; two wings 20x75 ft.; 2 stories; roof garden; ordinary construction; slag roof; cost \$15,000; no general contract; subcontracts let locally. (Lately noted.)

Fla., Pinellas.—F. A. Davis, Dr. A. B. Davis, Wm. McGeorge, Jr., and B. F. Meany, Philadelphia, Pa., have plans by C. E. Schermerhorn, 439 Walnut St., Philadelphia, for Court Apartment-house; main building 60x40 ft.; two wings 20x75 ft.; 2 stories; roof garden; ordinary construction; slag roof; cost \$15,000; no general contract; subcontracts let locally. (Lately noted.)

Ga., Atlanta.—Wm. Wilson, 503 Forsythe Bldg., will erect apartment-house; 25 rooms; frame; tar and gravel roof; cost \$5500. (Lately noted under Dwellings.)

Mo., St. Louis.—E. Myerose will erect 2-story flat at 3122 Magnolia St.; cost \$37,000.

Mo., St. Louis.—F. C. Mueller will erect three 2-story flats 2915-19 Sidney St.; cost \$10,500.

Mo., St. Louis.—Julia Spinner has permit to erect 2-story tenement-house 5006 Nottingham St.; cost \$4,000.

Mo., St. Louis.—E. P. Doody will erect 5 and 6-room flat Hartford St.

Mo., St. Louis.—J. P. McGowan is reported as planning to erect combination apartment, store and theater building. (See Stores.)

Mo., St. Louis.—Wm. J. Moxey will erect 2-story tenement-house 3033-35 N. 23d St.; cost \$5,000.

Mo., St. Louis.—Kolstner & Steinmeyer will erect 2-story tenement-house 2321 Russell Ave.; cost \$5,000.

Mo., St. Louis.—B. Rickelmann will erect 2-story tenement-house 427 Pennsylvania Ave.; cost \$5,000.

Mo., St. Louis.—V. A. Chinberg has plans by Nolte & Chinberg, St. Louis, for two 2-story tenement-houses 3906-08-12-14 Lafayette St.; cost \$15,000; construction by owner.

Mo., St. Louis.—Jas. P. Thornhill will erect double flats Marcus Ave.

Va., Richmond.—Marcus Hallett prepared plans for Westchester Apartments, Grove Ave. and Morris St.; 5 stories; brick; 55½x 12½ ft.; cost \$20,000 to \$25,000.

#### ASSOCIATION AND FRATERNAL

Ala., Birmingham.—Birmingham Council No. 636, Knights of Columbus, will erect building.

Ky., Hickman.—I. O. O. F. will erect lodge building at Woodland Mills to replace structure recently burned.

Mo., Fenton.—Jno. J. Koch will erect lodge hall, etc. (See Stores.)

Md., Mt. Washington.—Champion Lodge, K. of P., will erect addition to castle.

Miss., Laurel.—Y. M. C. A. is having plans prepared for building; cost \$55,000.

Miss., Meridian.—Building Com., Scottish Rite Building Assn., O. L. McKay, Chrmn., will receive bids until Dec. 18 to erect cathedral; plans and specifications on file at office of P. J. Krouse, Archt., Meridian, call for structure 112x119 ft.; ordinary construction; steam heat; gravel roof; cost about \$50,000. (Previously noted.)

N. C., Charlotte.—B. P. O. E. plans to erect lodge building; cost \$15,000 to \$20,000.

N. C., Charlotte.—Oasis Temple, Nobles of the Mystic Shrine, reported planning to erect temple; cost not less than \$60,000; Leake Carraway, Chrmn. Building Com.

Tex., Dallas.—B. P. O. E. has plans by H. A. Overbeck, Dallas, for building Poca-bontas St. and Park Ave.; concrete; beamed ceilings; Spanish mission style; cost \$20,000. (Lately noted.)

Va., Richmond.—A. F. & A. M. have plans by Wm. C. West for building at Highland Park; 2 or 3 stories; brick.

#### BANK AND OFFICE

D. C., Washington.—Columbia Granite & Dredging Co., 3036 K St. N. W., has permit to erect office building 3036 H St., with store-room on first floor; colonial style; 2 stories; construction of stone from company's quarries to be used in rough state with thickness of 2 feet.

Fla., Avon Park.—Polk County Realty Co. will, it is reported, erect office and hotel building.

Fla., Starke.—Bradford County Bank opens bids Dec. 15 to erect bank building; 50x60 ft.; ordinary construction; composition roof; cost \$10,000; Talley & Sumner, Archts., Jacksonville, Fla. (Lately noted.)

Fla., Tarpon Springs.—Mrs. W. F. Meres

La., Oberlin.—Allen parish receives bids until Jan. 5 to erect courthouse and jail buildings; each 2 stories and basement; 113x68 ft.; fireproof; composition roof; low-pressure steam heat; plans and specifications at office Favrot & Livaudais, Architects, New Orleans; Contractors and Dealers' Exchange, New Orleans, and Clerk of Court, Oberlin. (Lately noted.)

La., Pointe a La Hache.—Plaquemine Parish Police Jury will call for competitive plans for courthouse to cost about \$30,000. (Lately noted.)

Mo., New Madrid.—New Madrid county reported to have voted bonds to erect courthouse and jail. Address County Commrs.

N. C., Durham.—Durham County Commrs. reported as contemplating erecting courthouse. (Previously noted as considering plans to improve present structure.)

## DWELLINGS

D. C., Washington.—Middaugh & Shannon, Colorado Bldg., will erect dwellings 400-15 New Hampshire Ave. N. W., in addition to those previously erected; 2 stories and basement; colonial style; brick; canopied white porches; stone trimmings; hot-water heat.

D. C., Washington.—Frank B. Milburn, 1710 14th St. N. W., will erect residence Bradley Hills.

D. C., Washington.—Harry R. Loveless, 144 12th St. N. W., has plans by Iton E. Loveless, 144 12th St. N. W., for 2-story dwelling 3119 Potomac Ave.; cost \$3,000; construction by owner.

D. C., Washington.—Simon Lyon, 701-05 Evans Bldg., will erect residence Decatur St. and Ave. of Presidents.

Fla., Jacksonville.—H. S. Griggs has plans by G. T. Butler, 435 St. James Bldg., Jacksonville, for dwelling; stone; Rector system of heating; green slate roof; cost \$16,000.

Fla., Jacksonville.—Solomon Shad has plans by G. T. Butler, 435 St. James Bldg., Jacksonville, for 5 bungalows; frame and stone; cost \$2500.

Fla., Jacksonville.—T. S. Roberts reported to erect residence; 2 stories; frame; cost \$10,000.

Fla., Lakeland.—G. E. Southard will, it is reported, erect 8-room residence.

Fla., Sanford.—Louis S. Fisher, 205 E. 10th St., will expend \$1500 each to erect four 7-room bungalows; mill construction; galvanized shingle roof; plans and construction by owner. (Lately noted.)

Fla., Palmetto.—Frank W. Hebble invites contractors to submit estimates to erect dwelling; 38x20 ft.; 5 rooms and bath.

Fla., Pensacola.—S. Pinney has plans by Alfred & Alfred, Pensacola, for dwelling; 33x53 ft.; frame; vulcanized asphalt shingle roof; gas and electric lighting.

Fla., St. Augustine.—Chas. M. Fuller has plans by G. T. Butler, 435 St. James Bldg., Jacksonville, for 14 residences in Nellmar Ter.; brick, stone and frame; cost \$6000 to \$8000 each; contract let in 10 days.

Fla., Zolfo.—Methodist Episcopal Church South reported to erect parsonage. Address The Pastor.

Ga., Atlanta.—Mrs. J. A. Farmer will, it is reported, erect residence; 2 stories; brick; day labor; cost \$12,000.

Ga., Atlanta.—Wm. Wilson has permit to erect 2-story frame residence; cost \$4500; day labor.

Ga., Atlanta.—Z. D. Harrison will erect 2-story frame dwelling 20 Yonge St.; cost \$6000; day labor.

Ga., Atlanta.—Mrs. Nora G. Webb has permit to erect 2-story frame residence 217 Barnett St.; cost \$2500; day labor.

Ga., Atlanta.—Jno. M. George has permit to erect residence at 55 Drewry St.; cost \$3000; day labor.

Ga., Augusta.—Geo. R. Lombard will, it is reported, erect two 2-story residences; frame; cost \$3000.

Ga., Pineview.—Love Pate will erect dwelling.

Ga., Savannah.—F. M. Papv will erect 2 two-story dwellings Gwinnett St.

La., New Orleans.—W. R. Gilbert will erect two one-story frame and stucco residences; cost \$9000.

La., New Orleans.—A. C. Nall will erect 2-story frame residence; cost \$3000.

La., New Orleans.—Suburban Homestead Assn. will erect 2-story residence; cost \$3900. Md., Baltimore.—Jas. McEvoy, Title Bldg., is having plans prepared by Thos. Bond Owings, 1215 John St., Baltimore, for residence Guilford; 3 stories; 40x120 ft. (Previously noted.)

La., St. Bernard.—A. S. Nunez will erect residence.

Md., Baltimore.—Jerome Pipitone, 2363 McCulloh St., will erect cottages Calloway Pl. and Edgerton Rd., Lenox.

Md., Baltimore.—C. Braxton Dallam, Treas. Wm. C. Robinson Co., 1501 Thames St., contemplates erecting dwelling at Guilford.

Md., Baltimore.—Geo. W. Smith, Prest. Elastic Wheel Co., Union Trust Bldg., will erect dwelling at Guilford.

Md., Baltimore.—Jas. Keely, Edmondson and Ashburton Aves., will erect 37 two-story brick dwellings; 15 at Mosher St. and Ashburton Ave., 15x48 ft., cost \$15,000; 6 at Poplar Grove Ave. and Mosher St., 15x52.6 ft., cost \$10,000, and 16 at Mosher and Dukeland Sts., cost \$20,000; steam heat; tin roofs; W. B. Gerwig, Archt., 1028 N. Fulton Ave.; construction by owner. (Lately noted.)

Md., Baltimore.—Jno. P. Brandau, 700 E. North Ave., will erect 20 dwellings North Ave. and 8th St.; 2 stories.

Md., Baltimore.—Wm. G. Scarlett, 719-35 E. Pratt St., has plans by Owens & Sisco, Continental Bldg., Baltimore, for residence Guilford; 2½ stories; brick; cost \$15,000; contractors reported estimating are Willard E. Harn Co., 213 N. Calvert St.; Glaffelter & Chambers, 2074 Woodberry Ave.; G. Walter Tovell, Eutaw and Dolphin Sts.; B. F. Bennett Bldg. Co., 123 S. Howard St., all of Baltimore, and Roland Park Co., Munsey Bldg., Baltimore, and Roland Park, Md. (Previously noted.)

Md., Baltimore.—Jackson Realty Co., 812 Equitable Bldg., will erect dwelling Bonner Rd. near Oakfield Ave.; 2½ stories; 27x32 ft.; cost \$3500.

Md., Blue Mountain.—John J. Gibbon, Mgr. of Baldwin Hotel, Hagerstown, Md., is reported to have purchased site for capitalists who contemplate erection of bungalows, etc.

Md., Frederick.—Milton Cutsail will erect 2 dwellings.

Mo., Fenton.—Jno. J. Koch will erect brick and tile dwelling, store and lodge hall; cost \$6970.

Mo., St. Louis.—C. Swinhardt will erect 2-story dwelling 2373 Clarence Ave.; cost \$3600.

Mo., St. Louis.—Chas. S. Mueri will erect 4 two-story dwellings 3635 Bamberger Ave.; cost \$12,000.

S. C., Anderson.—R. E. Burris will erect residence; 2 stories; 10 rooms; construction by day labor under supervision of J. H. Hammond.

N. C., Greensboro.—E. P. Hobgood will erect residence North Park Drive and Magnolia St.; cost \$8000.

S. C., Charleston.—A. C. Kaufman has plans by D. C. Barbot, Charleston, for residence on Ashley River; piazza at front and sides.

Tenn., Cleveland.—Red Hill Methodist Church reported as to erect parsonage. Address The Pastor.

Tenn., Chattanooga.—W. J. Mitchell will erect two 5-room cottages Anderson Ave. between Beach and Willow Sts.; cost \$3000.

Tex., Angleton.—Presbyterian Church will erect manse; 1½ stories. Address The Pastor.

Tex., Dallas.—G. R. and C. S. Ellis will erect residence 2902 Grand St.; 2 stories; 8 rooms; frame; cost \$2500.

Tex., Dallas.—W. D. Trotter will erect 6-room frame cottage 103 N. Edgefield St.; cost \$3500.

Tex., Dallas.—Mrs. Ruby DeStafano will erect 12-room 2-story frame residence 298-10 N. Pearl St.; cost \$2500.

Tex., Dallas.—V. R. Walker, 2000 Garrett Ave., has plans by R. E. Gilmore, 610 N. Pearl St., Dallas, for dwelling; 45x34 ft.; 2 stories; hot air heat; shingle and canvas deck roofing; cost \$3500; bids opened Dec. 5.

Tex., El Paso.—Wm. H. Lorentz is having plans prepared by O. H. Thorman & Co., El Paso, for residence Manhattan Heights; Flemish style; brick and plaster; 2 stories; hardwood finishings.

Tex., Houston.—H. C. Boldt will erect residence.

Tex., Houston.—Dr. S. T. Pulliam is reported to erect residence Montrose.

Tex., Houston.—Mrs. Betty Bryan will erect residence Lovett Blvd. and Whitney St.

Tex., Houston.—A. C. Ford will, it is reported, erect residence in Montrose.

Tex., Houston.—Benj. Scheps will erect residence in Montrose.

Tex., Houston.—O. A. Coons Building Co. has permit to erect residence on Mt. Vernon Ave.; cost \$4000.

Tex., Houston.—Dr. M. Sandel has permit to erect 20 four-room cottages Stinson tract; cost \$6000.

Tex., Madisonville.—Jno. W. Williams will erect residence Sheeler Addition.

Tex., Temple.—A. J. Jarrell is reported to erect residence 9th St. and Adams Ave.; brick; cost \$20,000.

Tex., Waco.—J. H. Riley is reported as to erect residence; cost \$15,000.

Tex., Waco.—T. F. Bush, C. W. Wilson, A. H. O. Ramsey, J. D. Williamson, L. F. Cowan and G. T. Zinia will, it is reported, each erect residences.

Tex., Waco.—Dr. H. E. Hoke reported to erect residence 29th and Washington Sts.; cost \$16,000.

W. Va., Wheeling.—T. L. Harris will erect residence Ohio St.

## GOVERNMENT AND STATE

Ark., Little Rock.—Postoffice.—Jack Walker, custodian, receives bids until Jan. 10 for repairs, painting, etc., to postoffice; plans and specifications on application.

D. C., Washington.—Hospital.—Depot Quartermaster, U. S. A., opened bids to erect addition to kitchen and messroom at Walter Reed General Hospital, Takoma Park; Wm. E. Mooney, 1420 New York Ave. N. W., Washington, is lowest bidder at \$31,261. (Lately noted.)

Va., Bedford City.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., rejected all bids to erect postoffice. (Previously noted.)

Va., Hampton.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., is completing plans for postoffice building; probable cost \$100,000; construction probably begin in spring.

## HOTELS

Ala., Lafayette.—Lafayette Cotton Oil Mills is interested in erecting hotel to cost \$20,000; architects and contractors invited to submit plans and estimates.

Fla., Avon Park.—Polk County Realty Co. will, it is reported, erect office and hotel building.

Fla., Bartow.—Seaboard Air Line Ry., W. D. Faucette, Ch. Engr., Portsmouth, Va., and Atlantic Coast Line R. R., E. B. Pleasants, Ch. Engr., Wilmington, N. C., are reported considering erecting union depot.

Fla., Miami.—Hotel Plaza Co., J. W. Chase, Prest., 624 White Bldg., Buffalo, N. Y., increased capital stock to \$100,000; will erect addition to hotel; 4 stories; reinforced concrete; private bath to each room; remodel and erect addition to dining room, enlarge kitchen, install new electric elevator, remodel front of present building and erect additional story, making same 5 stories high; cost \$25,000 to \$40,000.

Ga., Collins.—W. H. Youmans is reported as interested in erecting hotel; 20 rooms; brick; cost \$10,000.

Ga., Rome.—Broad St. Hotel Co. opens bids about Jan. 1 to erect hotel; 112x120 ft.; 5 stories; reinforced concrete; composition roof; direct steam (low pressure) heat; 2 (one combination) elevators; cost \$97,500; A. Ten Eyck Brown, Archt., Atlanta, Ga.; heating, lighting, plumbing, marble, etc., let separately. (Lately noted.)

Md., Blue Mountain.—John J. Gibbon, Mgr. of Baldwin Hotel, Hagerstown, Md., is reported to have purchased 415-acre tract (site of former Blue Mountain House) for New York and New Jersey capitalists, who will erect hotel; contemplate erection of number of bungalows. (Blue Mountain House previously noted burned at loss of \$200,000.)

Mo., Kansas City.—Muehlbach estate receives bids about Jan. 15 to erect hotel 12th St. and Baltimore Ave.; 12 stories; 500 rooms; steel frame; tile and concrete floors; cost \$1,000,000; Holabird & Roche, Architects, Chicago; Baird & Huselton, architects' representatives, 1003 Waldheim Bldg., Kansas City. (Lately noted.)

N. C., Greensboro.—McAdoo estate will erect hotel Elm and Washington Sts.; W. D. McAdoo wires Manufacturers Record: "Structure will be 12 stories; roof garden; 41x150 ft.; W. P. Robinson, Archt., Greensboro; no contracts let. Address W. D. McAdoo." (Lately detailed.)

Tenn., Dyersburg.—Virginia Hotel Co. will alter and improve hotel at cost of about \$20,000; install passenger elevator, heating plant, dining room, etc.

Tenn., Harriman.—J. H. Brown purchased Cumberland Hotel and is reported planning interior improvements.

Tex., Marshall.—Capitol Hotel Co. will, it is reported, expend \$20,000 to improve hotel.

## MISCELLANEOUS

Fla., Kissimmee.—Clubhouse.—Country Club has plans by L. Percival Hutton, Orlando, Fla., and is considering bids to erect clubhouse. (Previously noted.)

Ga., Atlanta.—Hospital.—Drs. C. W. Daniel, Jno. E. White, Wm. Russell Owen and others are promoting erection of Baptist Hospital to cost about \$200,000.

Ky., Louisville.—Stables.—Southern Asphaltolene Road Co., 1145 4th St., will rebuild stables; 50x150 ft.; wood and sheet-iron construction; tin roof; electric wiring; cost \$5000; construction probably by owners. (Lately reported burned.)

Ky., Louisville.—Clubhouse.—Louisville Turnmemeinde plans to erect building S. E. Cor. Floyd St. and Broadway; cost \$75,000.

Ky., Louisville.—Clubhouse.—Young Men's Club of St. Mark's Episcopal Church plans to erect clubhouse.

Md., Baltimore.—Hospital.—Maryland General Hospital, Linden Ave. and Madison St., will improve building of Baltimore College of Dental Surgery on Howard St., for surgery, at cost of about \$10,000; plans 100 additional beds, also later to erect nurses' home; Dr. J. M. H. Rowland, 1204 Madison Ave., and others interested.

Md., Easton.—Hospital.—Tri-County Hospital, Wm. H. Kemp, Prest. directors, plans to erect hospital to cost about \$10,000.

Mo., Eureka.—Barn.—Thos. Shields will erect barn; hollow tile; 170x32 ft.; cost \$900.

Okla., Medicine Park.—Clubhouse.—Oklahoma Press Assn. inceptd. by E. S. Bronson (Prest.), Jno. N. Shepler and others; will erect clubhouse.

Tenn., Nashville.—Sanitarium.—Drs. R. O. Tucker and A. L. Sharber contemplate, it is reported, erection of sanitarium.

Tex., Houston.—Hospital.—Rev. F. E. Fincher and Dr. Wm. F. Coburn are Prest. and Secy., respectively, of advisory board of proposed Presbyterian Sanitarium to be erected.

## RAILWAY STATIONS, SHEDS, ETC.

Tex., Carmona.—Missouri, Kansas & Texas Ry. system, A. M. Acheson, Ch. Engr., Dallas, is reported to erect depot.

## SCHOOLS

Ala., Bessemer.—City is reported as planning election on \$20,000 bonds for schools. Address The Mayor.

D. C., Washington.—Gonzaga College is having plans prepared by Frank Pierson, Washington Loan & Trust Bldg., Washington, for 3-story building; cost \$100,000.

Fla., Fort Myers.—Lee County School Board will have plans prepared by F. J. Kennard, Tampa, for high school; 8 rooms; assembly hall; cost \$35,000. (Previously noted.)

Fla., Miami.—Dade County School Board reported considering \$100,000 bond issue to erect \$40,000 to \$50,000 high school, and ward schools in Buena Vista, Southside, Riverside, Orange Glade and Allapattah, and addition to 2d St. school; R. E. Hall, County Supt. (Previously noted.)

Fla., St. Petersburg.—Board of Public Instruction will receive bids at office Dixie M. Hollins, Secy. and County Supt., Clearwater, Fla., until Jan. 6 (extended date) to erect 4 schools; plans and specifications at office J. G. Bonniwell, Archt., St. Petersburg. (Lately noted.)

Ga., Lagrange.—City, J. D. Edmundson, Mayor, is reported to have purchased site for proposed school to be erected at cost of \$40,000; plans not accepted.

Ky., Hickman.—School Trustees will rebuild burned school at Woodland Mills.

Ky., Ludlow.—City voted \$20,000 bonds for schools. Address The Mayor.

La., Hammond.—City will, it is reported, vote on \$90,000 bonds, to include \$50,000 for high school. Address The Mayor.

La., New Orleans.—Dept. of Public Finance, Auditing Division, A. G. Ricks, Commrs., receives bids until Dec. 12 to erect janitor's lodge on grounds of Warren Easton Boys' High School, 1 story, brick; receives bids until Dec. 15 to erect Daniel Colored School, 2 stories, 6 rooms, frame, hot-water heat, electric lights; plans, specifications and blanks forms at office of City Engr. (Lately noted.)

La., St. Bernard.—School Board is reported as considering erecting school at Borgne-mouth.

Miss., Gulfport.—Southern Arts and Crafts School, David Watson, Prest., Washington University, St. Louis, Mo., will incorporate and erect school; construction to begin about Feb. 1.



Miss., Gulfport.—Southern Arts and Crafts Society purchased site and will erect buildings to accommodate 350 students.

Miss., Tunica.—Tunica county will vote in January on \$20,000 bond issue to establish and maintain agricultural high school. Address County Commrs.

Mo., Columbia.—University of Missouri, J. Y. Babb, Secy., receives bids until Jan. 5 to erect library building on university grounds; plans and specifications at office Jas. P. Jamieson, Archt., 800 Security Bldg., St. Louis. (Lately noted.)

Mo., Jefferson City.—Jefferson City School Dist. reported voted \$100,000 bonds for high school. Address Dist. School Trustees.

Mo., Joplin.—City defeated \$250,000 bonds to erect high school. (Lately noted.)

Mo., Kansas City.—Board of Education, J. B. Jackson, Secy., will soon receive bids to erect McCoy and Gladstone schools; former to contain 11 rooms, gymnasium and assembly hall; latter, 9 rooms, gymnasium and assembly hall; will also receive bids for 8-room addition to Clay School, addition to Longfellow School, to include manual training department, domestic science, kindergarten, gymnasium, 2 schoolrooms and yard equipment; having plans prepared for Karnes School, to contain 28 rooms, Milton Moore School, 11 rooms, and Kensington School, 17 rooms; Chas. A. Smith, Archt. for Board; opened bids for Central High School and let contract at about \$352,000 to Louis Breitig & Son, Kansas City, to erect Southeast High School. (Noted in June as having voted \$1,750,000 bonds for schools.)

N. C., Nashville.—Red Oak Dist. voted \$10,000 bonds to erect proposed farm-life school at Red Oak. Address County Supt. Austin.

N. C., Raleigh.—Wake County Commrs. ordered election Jan. 14 for Raleigh township to vote on \$50,000 bonds, \$25,000 of which to erect fireproof school building Glenwood and remainder to repair negro schools. (Lately noted.)

Tenn., Friendsville.—Friendsville Academy, J. F. Peters, Secy.-Treas., will expend \$6000 to \$8000 to erect building to replace burned structure; 70x90 ft.; brick; slate or metal roof; hot-air heat; architect not employed. (Lately noted.)

Tex., Dallas.—Bishop Jos. P. Lynch of Catholic Diocese of Dallas plans to establish school for boys.

Tex., Houston.—Reagan School Mothers' Club is promoting erection of auditorium and industrial arts building at Reagan School; cost about \$10,000.

Tex., McKinney.—City opens bids about Jan. 29 to erect high school; 116x142 ft.; semi-fireproof; composition roof; mechanical split system of heating; cost \$65,000; Sparger & Peters, Archts., Bonham, Tex. (Lately noted having voted \$75,000 bonds.)

Tex., Memphis.—City voted bonds to erect \$25,000 high school and remodel and equip present structures. Address The Mayor.

Tex., Terrell.—City will vote Jan. 13 on \$85,000 bonds for schools. (See City and County.)

Va., Richmond.—Richmond College engaged Carnel & Johnston, Chamber of Commerce Bldg., Richmond, as architects for power-house, heating plant, etc.; previously noted. (See Water-works.)

W. Va., Masontown.—H. M. Martin, Secy. Board of Education, states contract to erect school will not be let before summer; W. S. Ford, Archt., Clarksburg, W. Va. (Lately noted to let contract about Dec. 1.)

## STORES

D. C., Washington.—Columbia Granite & Dredging Co., 3636 K St. N. W., has permit to erect building with store on first floor. (See Bank and Office.)

D. C., Washington.—J. C. Walker has plans by Appleton P. Clark, Jr., 816 14th St. N. W., Washington, for building; 22x62 ft.; partially fireproof; clay tile and tin roof; hot-water heat; cost \$15,000. (Lately noted under Miscellaneous.)

Fla., Auburndale.—John Patterson will rebuild burned business block; 2 stories; brick. (Lately noted.)

Fla., Auburndale.—Jno. Patterson and Patterson & Thomas will expend \$10,000 to erect building to replace burned store; 60x110 ft.; solid walls; skylights; elevator; architect not selected. (Lately noted.)

Fla., Punta Gorda.—Dr. E. E. Welsh, Eaton, O., is reported to repair damaged building; concrete construction; also considering erecting additional building.

Fla., Tarpon Springs.—Mrs. W. F. Meres and Ernest Meres will, it is reported, erect building Tarpon Ave.; 2 stories; brick; 75x

100 ft.; lower floor for stores; upper floor for offices; cost \$20,000.

Ga., Atlanta.—Chas. H. Black will erect business building; 4 stories; mill construction; 50x100 ft.; tar and gravel roof; vapor heat; day labor; cost about \$12,000; C. E. Frazier, Archt., Atlanta. (Lately noted.)

Ga., Augusta.—Henry G. Kale will erect building adjoining Barrett Plaza; 3 stories; brick or stone; 75x110 ft.; fireproof; gravel roof; cost \$50,000; will let contract to J. W. Sibert; G. Lloyd Preacher, Archt., Augusta.

Ga., Reidsville.—H. C. Beasley and E. Widencamp are reported as contemplating erecting 2-story brick building to contain 3 stories; cost \$12,000.

Ga., Savannah.—Wage Earners' Loan & Investment Co., 468 W. Broad St., is reported to have plans for bank, office and store building. (See Bank and Office.)

Md., Baltimore.—J. Chas. Linthicum & Bro., 217-19 St. Paul-St., have plans for store and office building on Courtland St. (See Bank and Office.)

Mo., Fenton.—John J. Koch will erect store, etc. (See Dwellings.)

Mo., Kansas City.—C. F. Morse, Boston, Mass., reported as to erect building 20th St. and Grand Ave., to be occupied by Fisk Rubber Co.; 4 or 6 stories; reinforced concrete; cost \$100,000 to \$125,000.

Mo., St. Louis.—Lungstrass Realty Co. will erect addition to and alter building 413 N. 7th St.; cost \$10,000.

Mo., St. Louis.—J. P. McGowan is reported as planning to erect combination store, theater and apartment building to cost about \$100,000.

Mo., St. Louis.—Gerard B. Allen estate is reported to erect mercantile building Broadway and Pine St.

Okla., Enid.—R. W. Shaw is preparing plans for business building.

Okla., Fort Cobb.—L. P. Parsons, Chickasha, Okla., has plans for business building.

Okla., Pawhuska.—A. W. Hurley, Secy. Triangle Building Co., opens bids Dec. 15 to erect office and store building; lately noted to receive bids until Dec. 25. (See Bank and Office Buildings.)

Tenn., Creston.—J. W. Bowden, Wm. Parsons and J. S. Johns are interested in erection of Farmers' Union store; 2 stories; 20x40 ft.

Tex., Dallas.—Nieman-Marcus Co. has plans by Hubbell & Greene, Dallas, for store building Main and Ervay Sts.; 4 stories and basement; fireproof; 100x100 ft.; concrete; cost about \$150,000; C. A. Wheeler, interior designer, Chicago. (Previously noted.)

Tex., Houston.—Alfred C. Finn, Woolworth Bldg., Houston, prepared plans to improve and remodel store at Main and Capitol Ave.; 26x80 ft.; cost \$12,000.

Tex., Richmond.—Dr. J. C. Johnson has plans by O. H. Rudisil, Houston, for 2 stories; 1 story; 25x70 ft. each; brick; 4-ply gravel roof; electric wiring; will let contract about Jan. 1; cost \$3000. (Lately noted.)

Tex., San Marcos.—G. G. Johnson and T. C. Johnson will receive bids until Dec. 16 to erect brick addition to store; plans and specifications on application.

Tex., Waco.—N. M. Gay has permit to erect 3-story building 116-18 Bridge St.; cost \$20,000.

Tex., Waco.—L. Fred and T. W. Glass will erect business building Franklin St.; brick; 2 stories; glass front; frontage 100 ft.; cost \$20,000.

W. Va., Huntington.—D. B. Gwinn will erect business building; 3 stories; lower floor for stores; upper floors, offices.

## THEATERS

Ky., Lancaster.—Alex. Walker is reported as to erect opera house on Lexington Ave.

Mo., St. Louis.—J. P. McGowan is reported as planning to erect combination theater, store and apartment building; cost about \$100,000. (See Stores.)

Tex., Texarkana.—W. C. Hardin, Corpus Christi, Tex., reported interested in erection of \$50,000 theater.

## WAREHOUSES

Ala., Guin.—Farmers' Union Warehouse & Storage Co. opens bids Dec. 15 to rebuild warehouse lately reported burned; 20x200 ft.; concrete construction; composition (felt) roof; cost \$5000; F. J. McGowan, Archt., Guin. (See Machinery Wanted.)

Fla., Pensacola.—E. G. Carter and Ira Virgin will, it is reported, erect cotton warehouse.

Md., Baltimore.—L. A. and Sarah Cohen, 2817 O'Donnell St., will erect 2-story warehouse 2813-17 O'Donnell St.; cost \$8000.

Miss., Bond.—Mills Farms Co., F. B. Mills, Mgr., Rose Hill, N. Y., contemplates building warehouse.

Mo., St. Louis.—J. M. Allen will expend \$4000 to repair warehouse 1201 Spruce St.; construction by owner.

N. C., Clinton.—T. R. Landon will erect to

lacco warehouse to be leased to W. J. Weeks, J. W. Burge and Geo. L. Peterson.

Tex., Houston.—Fritchard Rice Mills has permit to erect warehouse Meadow St.; cost \$7000.

W. Va., Huntington.—Hans Watts will erect warehouse on 8th St.

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Ala., Gadsden.—J. Nadler let contract W. T. Christopher to erect apartment-house 5th and Cherry Sts.; 2 stories; red pressed-brick exterior; terra-cotta and stone trimmings; hardwood interior finishings; cost \$10,000.

Mo., St. Louis.—A. Sodolsky let contract J. Westermayer to erect 2-story tenement-house 436 Juniata St.; cost \$3000.

Mo., St. Louis.—Frank Dugal let contract H. Boyle, St. Louis, to erect 2-story tenement-house; cost \$3500.

Mo., St. Louis.—Avon Realty Co. let contract to erect business and apartment building. (See Stores.)

Mo., St. Louis.—Stanford Investment Co. has plans by A. B. Riddington, St. Louis, for two 2-story tenement-houses 5791 Kingsbury Pl.; 35x35 ft.; tar and gravel roof; low-pressure steam heat; cost \$5800; contracts sublet.

Va., Richmond.—E. B. Allen let contract N. W. and P. D. Perkins to erect 2-story brick tenement-house 21th St.; cost \$3500. (Lately noted.)

### BANK AND OFFICE

Ga., Savannah.—Hibernia Bank of Savannah, it is reported, let contract W. H. Fissell & Co., New York, to erect bank building; 1 story with 3-story effect; about 58x90 ft.; marble or granite; heating and cold storage plants, vaults, etc., in basement; interior trimmed with ornamental plastered pilaster; banking screens, counters, etc., of marble; vaults to accommodate about 1000 safe-deposit boxes; separate vault for cash and securities; separate fireproof vault for books and documents; marble tile flooring; cost about \$100,000; Mowbray & Uffinger, Archts., 56 Liberty St., New York. (Previously noted.)

### CHURCHES

D. C., Washington.—Petworth Baptist Church let contract J. F. Mills, 904 Shepherd St. N. W., to erect building 553 Randolph St.; 1 story and basement; Gothic style; brick; stone trimmings; cost \$16,000; Spelden & Spelden, Archts., 1403 New York Ave. N. W., Washington. (Lately noted.)

La., Lafayette.—St. John's Catholic Church is erecting building; 70x170 ft.; fireproof; asbestos shingle roof; steam heat; electric lighting; cost \$60,000; contract let to E. Guillot, New Iberia, La.

La., New Orleans.—Carrollton Ave. Methodist Church South, Rev. J. M. Snelling, pastor, it is reported, let contract J. J. Swiller to erect building; cost about \$30,000; Sam Stone, Jr., Archt., New Orleans. (Lately noted.)

Mo., St. Louis.—Bethania German Lutheran Church, Rev. F. H. Kraft, pastor, it is reported, let contract H. Schulte to erect building; cost about \$53,000; W. A. Lucas, Archt., 816 Olive St., St. Louis.

Tex., Quanah.—Baptist church let contract Quanah Building Co., Quanah, to erect building; 70x90 ft.; brick and stone; electric lighting; cost \$20,000; cost of heating plant \$1000; G. W. Taylor, Archt., Fort Worth, Tex. (Lately noted.)

Va., Richmond.—Mt. Vernon Baptist Church let contract Rudin F. Johnson to erect 1-story detached brick church building Wallace St. near Ritchie; cost \$5000.

### CITY AND COUNTY

W. Va., Gutandotte, Ind. Sta., Huntington.—Fire Station.—City Commrs. of Huntington let contract at 2236 to Graham & Funk to erect fire station; 1½ stories; 20x45 ft.; shingle roof; gas heat; ordinary construction; electric lights; W. B. Smith, Archt., Huntington. Address contractors. (Lately noted.)

### DWELLINGS

Ala., Brewton.—Chas. Bruce let contract, it is reported, to erect residence.

D. C., Washington.—Fenton G. Saunders let contract Edw. McGee to erect 3-story brick dwelling 2310 Tracy Pl.; cost \$10,000; A. E. Landvoigt, Archt., 1328 G St. N. W., Washington.

D. C., Washington.—Mary E. Beall has

plans by and let contract to Harry W. Baden, 2210 14th St. N. W., to erect store and dwelling. (See Stores.)

D. C., Washington.—Hallie Tapp, Cherrydale, Va., let contract E. W. Cornely to erect 2-story dwelling 3211 S. Dakota Ave. N. E.; cost \$3500; A. B. Mullett & Co., Archts., Union Trust Bldg., Washington.

Fla., Lakeland.—Wm. Lohr let contract, it is reported, to Carter & Logan to erect 3-room residence.

Fla., Palmetto.—J. W. Wilhelm let contract Stubbs & Weatherall, Palmetto, to erect residence.

Fla., St. Augustine.—Mrs. A. W. Barnard let contract, it is reported, to erect 7-room residence.

Fla., St. Petersburg.—Frank X. Morrison let contract to erect residence; cost \$4000.

Fla., St. Petersburg.—O. Snow let contract to erect dwelling; 34x50 ft.; ordinary construction; shingle roof; electric lighting; cost \$3000; Hood & Smith, Archts. (Lately noted.)

Fla., Tampa.—Frank Bennett let contract Fred Wagner, Tampa, to erect 10-room bungalow on Manatee Valley Land & Development Co.'s property; Hiram McElroy, Archt., Tampa.

Ga., Atlanta.—J. D. Blalock let contract, it is reported, to Fulton County Home Builders, Atlanta, to alter residence; cost \$8800.

Ga., Atlanta.—R. M. Abernathy is reported to have contract to erect residence; cost \$3200.

Ga., Augusta.—John J. Cohen, Jr., let contract John W. Siebert, Augusta, to erect dwelling; 48x40 ft., with 15x20-ft. extension; tin shingle roof; probably hot-air heat; gas and electric lighting; cost \$10,000; all contracts let except for heating plant. (Lately noted.)

Ky., Louisville.—M. L. Richter let contract to remodel dwelling and store. (See Stores.)

La., DelRider.—Louis Frusha, Bannister, La., let contract, it is reported, to erect 20 five and six-room bungalows.

Md., Baltimore.—Jno. Miedwig, 2678 Pennsylvania Ave., let contract to erect store and dwelling. (See Stores.)

Md., Baltimore.—Leon G. Nackman, 2423 Edmondson Ave., let contract Provident Realty Corporation, Garrison & Piedmont Aves., Baltimore, to erect bungalow Beulah Villas; 8 rooms.

Md., Baltimore.—A. E. Duncan, Garrett Bldg., let contract A. F. West, 15 E. Fayette St., Baltimore, to erect residence at Guilford; brick and stucco; 43x50 ft.; Wyatt & Nolting, Archts., Keyser Bldg., Baltimore. (Lately noted.)

Md., Baltimore.—Thos. Goodwillie, 2015 N. Calvert St., let contract Cowan Building Co., 106 W. Madison St., Baltimore, to erect dwelling Westover Rd., Guilford; 3 stories; 28x64 ft.; cost about \$20,000; Laurence H. Fowler, Archt., 247 N. Charles St., Baltimore. (Previously noted.)

Md., Baltimore.—Jno. Spittel, 2238 Wilkens Ave., and others, let contract Adam Kratz, 243 S. Smallwood St., to erect two 2-story brick dwellings 2238-40 Wilkens Ave.; tin roof; cost \$5000; F. E. Beall, Archt., 306 St. Paul St., Baltimore.

Miss., Ocean Springs.—D. V. Purlington let contract to erect residence; cost \$30,000.

Mo., Clayton.—F. L. Kerth let contract Ed Schirmer, Clayton, to erect residence; brick; 30x54 ft.; cost \$4500; G. W. Beniston, Archt.

N. C., Asheville.—Miss Rose Mary Byrne, Edgemont Park, Asheville, let contract to Merchant & Boyles, 44 American National Bank Bldg., Asheville, to erect 5-room cottage; cost \$3000.

N. C., Asheville.—S. M. Stevens let contract Merchant & Boyles, 44 American National Bank Bldg., Asheville, to erect residence; brick veneer; metal roof; 11 rooms and 2 baths; steam heat; electric lights; concrete foundation; plumbing and heating by owner; cost \$5000 to \$6000.

Tenn., Chattanooga.—W. A. Sadd and Dr. George R. West, guardians of Isbister heirs, let contract Dan P. Chandler to erect 4 brick residences McCallie Ave.; 2 stories; 7 or 8 rooms; cost \$15,000; W. H. Sears, Archt., Chattanooga.

Tenn., Memphis.—B. Culpepper has permit to erect residence at 1747 Carr Ave.; cost \$4000; J. B. Holt, Contr.

Tex., Bishop.—L. E. Appleby is reported to have let contract to Jenkins & Kendall to erect bungalow 6th St.

Tex., Cuero.—Thornton Hamilton let contract Chas. Feuss & Son, Cuero, to erect dwelling; 60x80 ft.; frame and brick; cost \$12,000; Jules Leland, Archt., Victoria, Tex. (Lately noted.)

Tex., Dallas.—Robert Wilmans, 1706 Commerce St., let contract T. W. Wallace, Sta. A, Dallas, to erect dwelling; 30x94 ft.; 2 stories and basement; frame; shingle roof; hot-air heat; electric lighting; cost \$4000; plans by owner. (Lately noted.)

Tex., Fort Worth.—W. E. Berry let contract Payne Bros. to erect dwelling; cost \$3000.

Tex., Fort Worth.—W. E. Bideker let contract J. A. Blair to erect dwelling; cost \$2850.

Tex., Fort Worth.—F. E. Hurley let contract to C. Epperly to erect dwelling; cost \$3900.

Tex., Galveston.—Mrs. J. Neis let contract O. E. Fischer Building Co., Galveston, to erect dwelling and store; 28x70 ft.; brick and frame; Johns-Manville roofing; cost \$4100; plans by Mr. Neis. (Lately noted.)

Tex., Houston.—R. T. Pierce let contract O. A. Coons Building Co. to erect residence Mt. Vernon Ave.

Tex., Houston.—L. W. Worsham, 408 Fanin St., has plans by and let contract to J. D. Carlisle & Son to erect five 5-room bungalows; ordinary construction; wood shingle roof; electric lighting; cost \$6250. (Lately noted.)

Va., Richmond.—Jno. G. Armistead let contract Geo. D. Priddy to erect 2-story brick dwelling 1311 West Ave.; cost \$6000. (Lately noted.)

Va., Richmond.—W. S. Bell let contract Davis Bros. to erect 2-story detached brick dwelling Floyd Ave.; cost \$4000. (Lately noted.)

Va., Richmond.—T. H. Jackson let contract E. A. Swann, 2309 Taylor St., Richmond, to erect dwelling; 2 stories; 26x56 ft.; ordinary construction; tin roof; electric lighting; cost \$8000; Davis Bros., Archt., 2510 W. Main St., Richmond. (Lately noted.)

## GOVERNMENT AND STATE

D. C., Washington.—Pension Office.—Treasury Dept., Oscar Wenderoth, Supervising Archt., let contract at \$14,611 to W. A. Fingles, 29 S. Howard St., Baltimore, Md., and at \$1978 to Jas. Nolan & Son for roof and down-spout system, respectively, at U. S. Pension Office. (Lately noted.)

N. C., Charlotte.—Assay.—Treasury Dept., Oscar Wenderoth, Supervising Archt., let contract at \$22,295 to Newport Construction & Engineering Co., Newport News, Va., to alter U. S. assay office, including new roof, floors and partitions. (Lately noted.)

Tenn., Nashville.—Hospital.—State let contract to J. E. Hallingsworth & Co. Memphis, to erect addition to Central Hospital for Insane; 3 stories; cost \$50,000; C. K. Colley, Archt., Nashville.

Tex., Hallettsville.—Postoffice.—J. H. Appelt has plans by and let contract to O. J. Howard, Eagle Lake, Tex., to erect postoffice building 30x60 ft. and store 22x30 ft.; brick with wood framing; composition roof; metal ceiling; cement floors; plate-glass store front; prism transoms; cost \$7000. (Lately noted.)

## HOTELS

Fla., Tampa.—Board of Public Works let contract at \$2969 to F. B. Cortina to paint exterior of Tampa Bay Hotel; completion in 60 days.

## RAILWAY STATIONS, SHEDS, ETC.

S. C., Edgefield.—Southern Ry. Co., B. Herman, Ch. Engr., 1309 Pennsylvania Ave., Washington, D. C., let contract Elliott Building Co., Hickory, N. C., to erect freight and passenger station; 29x136 ft. (Previously noted.)

## SCHOOLS

Fla., Eau Gallie.—Kentucky Military Institute is reported to have let contract W. I. Booth & Son, Titusville, Fla., to erect addition to building.

Miss., Purvis.—Lamar County Comms. let contract to rebuild school in Victory consolidated school district to replace burned structure.

Mo., Kansas City.—Board of Education let contract to Louis Breitig & Son, Kansas City, to erect Southeast High School. (See Buildings Proposed—Schools.)

Mo., West Plains.—School Board, it is reported, let contract T. M. Williams, Texoma, Mo., to erect school; cost, including site, \$35,600.

N. C., Aberdeen.—J. J. Stroud, Southern Pines, N. C., has contract to erect high school at \$14,215, less heating, plumbing, wiring and blackboards.

N. C., Henderson.—School Board let contract T. I. Harris, Henderson, to erect school; cost \$20,000. (Lately noted.)

N. C., Newbern.—City let contract H. S. Hancock, Newbern, to erect school; 64x80 ft.; fireproof; composition roof; cost \$13,000; Frank K. Thomson, Archt., Raleigh, N. C. (Lately noted.)

Tenn., Jellico.—Board of Education let contract J. C. Africa, Jellico, to erect school building; heating and plumbing contracts let Richmond Plumbing & Heating Co., Richmond, Ky.; R. F. Graf & Sons, Archts., Knoxville. (Lately noted.)

Tenn., Memphis.—St. Agnes Academy let contract Edw. Abele to erect building; 3 stories; brick and stone; will contain chapel, study hall, gymnasium and dining room; cost \$90,000 to \$70,000; Harker & Cairns, Archts., Memphis. (Previously noted.)

Tex., Houston.—Wm. Rice Institute let contract to Jas. Stewart & Co., Houston, to erect men's dormitory No. 2; 25x37 ft.; 3 stories; tower, 5 stories; to accommodate 102 men; suites to include study and 2 bedrooms; early Italian architecture; fireproof; face brick; exterior walls brick, limestone and marble columns; shingle tile (interlocking) roof; central heating plant; Cram & Ferguson, Archts., Wm. Ward Watkin, Mgr., Scanlan Bldg., Houston; granite contract let to A. L. Gooch, Austin, Tex.; roofing, Blumenthal Bros., Houston; glazed tile work, Enfield Tile Co.; Kahn system reinforced concrete; cost \$103,800; this building sixth of 33 buildings proposed in general plan. (Lately noted.)

Tex., Round Rock.—School Board let contract at \$21,680 to Jas. Belger, Austin, to erect school; 3 stories; brick; steam heat. (Previously noted.)

## STORES

Ala., Mobile.—S. H. Kress & Co., 396 Broadway, New York, let contract to Mayben & Fruechtel, Gadsden, Ala., to erect store; cost \$61,000. (See Machinery Wanted.)

Ark., Fort Smith.—Lewis Friedman let contract Jacob Truschke, Fort Smith, to erect store; 50x125 ft.; ordinary construction; gas or electric lighting; cost \$10,000; Edward Strong, First National Bank Bldg., Fort Smith. (Lately noted.)

Ark., Hot Springs.—Hamp Williams Hardware Co. let contract J. D. Johnson, Little Rock, to rebuild burned store building; 3 stories; brick; 150x100 ft.; plate-glass front; terra-cotta trimmings; approximate cost \$30,000. (Previously noted burned.)

D. C., Washington.—Mary E. Beall has plans by and let contract to Harry W. Baden, 2210 14th St. N. W., Washington, to erect 2-story brick store and dwelling 2346 Georgia Ave. N. W.

D. C., Washington.—Harry Wardman, K St., near 15th St. N. W., let contract Blake Palm, Bond Bldg., Washington, to install elevator 1400 Fairmont St.; cost \$4800.

Fla., Clearwater.—T. J. Sheridan let contract, it is reported, to John Phillipoff, Clearwater, to erect 2-story brick building; 5 stores on 1st floor.

Ga., Atlanta.—Boulos & Salumion let contract E. A. Cochran, Atlanta, to erect building; cost \$5100.

Ga., Dalton.—W. C. Martin let contract, it is reported, E. F. Hamilton to erect store building; pressed brick; plate-glass front; 75x90 ft.; cost \$7000.

Ky., Louisville.—Goldstein & Moseson, 1102 W. Market St., let contract Thomas & Whitton, 911 E. Washington St., Louisville, to remodel store; 60x105 ft.; non-fireproof construction; tin and composition roof; hot-air heat; cost \$10,000; Arthur R. Smith, Sr., Archt., 209 Morton Bldg., Louisville; all contracts let.

Ky., Louisville.—M. L. Richter let contract Thomas & Whitton, Louisville, to remodel store and dwelling; 62x105 ft.; 3 stories; gravel roof; hot-air or steam heat; cost \$14,000; Arthur Smith, Archt., Morton Bldg., Louisville. (Lately noted.)

Md., Baltimore.—Jno. Midwig, 2678 Pennsylvania Ave., let contract C. Herbold & Son, 2768 W. North Ave., Baltimore, to erect store and dwelling North and Dukeland Aves.; 1 story; 20.7x98 ft.; cost \$4000; Otto Kubitz, Archt., 807 Gorsuch Ave., Baltimore. (Lately noted.)

Mo., St. Louis.—F. W. Drosten let contract J. Green Construction Co., St. Louis, to erect mercantile building 2001 Locust St.; cost \$3000; A. B. Groves, Archt., St. Louis.

Mo., St. Louis.—Avon Realty Co. let contract B. J. Charleyville Co., St. Louis, to erect business and apartment building 5609-11 Delmar Ave.; 2 stories; cost \$20,000; P. J. Bradshaw, Archt., St. Louis.

Mo., St. Louis.—May Department Stores Co. let contract Jas. M. Black Co. to alter store 601 Washington St.; cost \$5000; Will Levy, Archt.

S. C., Florence.—J. P. McNeil let contract R. L. Graveley, Florence, to erect two-story brick store and office building; Carey roof; metal ceiling; tile vestibule; fireproof vaults. (See Machinery Wanted.)

Tenn., Memphis.—R. B. Snowden let contract J. E. Faires, Memphis, to repair building Main and Washington Sts.; cost \$10,000. (Lately noted burned.)

Tenn., Memphis.—D. Canale let contract Joe Bloomfield to install show windows in structure 61 S. Main St.; cost \$4000.

Tenn., Nashville.—S. Friedman let contract Jas. L. Howell & Sons, Nashville, to erect store building 116 3d Ave. N.; 3 stories; white enameled brick facing; 38x145 ft.; cost \$5000; C. K. Colley, Archt., Nashville.

Tex., Galveston.—Mrs. J. Neis let contract to erect store and dwelling; lately noted. (See Dwellings.)

Tex., Hallettsville.—J. H. Appelt let contract to erect store and postoffice building. (See Government and State.)

Tex., Houston.—W. C. Munn is reported to

have let contract C. J. Keays to erect entrance to building under construction and previously noted; plate-glass show windows on either side; cost \$10,000.

Va., Richmond.—M. Lieberman, 1902 E. Main St., let contract Roat & Co. to erect building; 20x70 ft.; ordinary construction; slate roof; cost \$7000; A. Hunt, Archt., 1107 E. Main St. (Lately noted.)

Va., West Point.—W. R. Broadus will expend \$3500 to erect store building; 60x21 ft.; 2 stories; semi-fireproof; electric lighting; architect not selected. (Contract lately reported let.)

## WAREHOUSES

Md., Baltimore.—Lewis Baer & Co. let contract Henry S. Ripple, 7 Clay St., Baltimore, to erect warehouse Conway St.; 4 stories; brick; fireproof; slag roof; electric lights; electric elevators; cost about \$15,000; Frank & Kavanaugh, Archts., 328 N. Charles St., Baltimore. (Lately noted.)

S. C., Florence.—E. M. Matthews let contract R. L. Graveley, Florence, to erect 1-story brick warehouse; 35x125 ft.; cement door; Carey roof.

Tex., San Antonio.—F. E. Scobey, 709 Gibbs Bldg., let contract Gordon-Jones Construction Co., San Antonio, to erect warehouse; 68x160 ft.; fireproof; tar and gravel roof; steam heat; electric elevators; cost \$56,000; Moores & Dunford, Archts., 746 Otis Bldg., Chicago. (Lately noted.)

## RAILROAD CONSTRUCTION

### RAILWAYS

Ala., Bridgeport.—Nashville, Chattanooga & St. Louis Ry., according to a report quoting an officer, will construct second track from Bridgeport to Bolivar, Ala., nearly 5½ mi. Hunter McDonald, Nashville, Tenn., is Ch. Engr.

Ala., Boaz.—W. W. Shortridge, V. P. and Secy. Birmingham & Chattanooga R. R. Co., Boaz, Ala., says contract has been let to Jordan & Phillips, Birmingham, to build 20 mi. of its projected line from Boaz northeast, and that no other contracts are to be let at present. P. S. Milner is Ch. Engr. Entire line proposed is 147 mi., Birmingham to Chattanooga via Boaz, and would include bridge over the Tennessee River at Chattanooga, besides other smaller bridges over Town Creek, Little Warrior River and smaller streams, and a tunnel 600 ft. long opposite Rising Fawn, Ga. J. M. Spradlin, Boaz, is Pres. and Treas.

Ala., New Decatur.—The Decatur, Moulton & Russellville Railway Co. of New Decatur is quoted saying that plans for construction of its contemplated 60-mi. line are still in a formative state. It would connect New Decatur, Newburg, Mount Hope, Landersville, catur, Decatur, Newburg, Mount Hope, Landersville, Danville, Jesseton and Russellville, Ala. W. J. Cottingham of New Decatur, Ala., and others are interested.

Ark., Blytheville.—Blytheville, Leachville & Arkansas Southern R. R. will build from Lepanto Junction to Lepanto, Ark., 7 mi. Contract not yet awarded. W. P. Orr, Blytheville, Ark., is Ch. Engr.

Ark., Newport.—The Chicago, Rock Island & Pacific Ry. Co. has been ordered by the Arkansas R. R. Commission to do extensive betterment work on its line from Brinkley to Newport, 51 mi., including new ties and rails and roadbed improvements. C. A. Morse, Chicago, Ill., is Ch. Engr.

Ark., Pine Bluff.—Referring to a recent press report, the St. Louis Southwestern Ry. Co. says that it has no intention to build a line from Pine Bluff to Sherrill, Ark.

Fla., Bartow.—Seaboard Air Line has let contract to Kibler, Boswell & Co. of Dunellon, Fla., to build an extension from Bartow to Pembroke, Fla., 8½ mi. W. D. Faucette, Portsmouth, Va., is Ch. Engr.

Fla., Fort Myers.—The Deep Lake Co., says a report, has constructed about 2 mi. of track on its line from Deep Lake to the Everglades, 13 mi. H. McCormack of Everglades, Fla., is Pres.

Fla., Madison.—Concerning a recent press report that it would build an extension from Madison to the Gulf of Mexico, the Georgia & Florida Ry. Co. says it is not contemplating any extensions or other construction in the near future, everything of that kind having been held up indefinitely.

Fla., Tampa.—Capitalists from Ohio and Kentucky are reported investigating a plan to build a 4-mi. trestle across the head of Old Tampa Bay and an electric railway to connect Tampa and St. Petersburg by that route, about 22 mi.; estimated cost about \$2,000,000. The Tampa Board of Trade may be able to give information.

Ga., Hawkinsville.—The Hawkinsville & Florida Southern Railway Co. says that it does not contemplate any new construction at this time. This refers to a recent press report that it would make extensive improvements, including the laying of 8-lb. rails.

Ky., Beattyville.—The Rockcastle & Cumberland R. R. Co., capital \$250,000, has been incorporated to build a coal railroad 35 mi. long in Lee county, connecting at Cressmont with the Louisville & Atlantic Ry. It will run from the mouth of Sturgeon Creek up that stream to the mouth of Wild Dog Creek, then cross a ridge to Warfork and up that stream to the mouth of Elsons Fork, following that to Indian Creek, along that to Laurel Fork, and down that to Rockcastle River. Incorporators are Paul W. Scott, H. T. Lovett, E. E. Williams and others, all of Huntington, W. Va.

La., New Orleans.—Charter is filed for the Interurban R. R. Co. to build a line from New Orleans to Kenner and other towns, about 20 mi.; capital \$1,000,000; directors, H. Geneser Dufour, T. Garland Tinsley, Charles Janvier, Crawford H. Ellis, Stonewall Jackson and W. C. Dufour.

La., New Orleans.—Construction has been started in Jefferson parish by the Orleans-Kenner Interurban Railway Co. for its proposed electric railway to connect New Orleans, Kenner and other towns. A. Smith Bowman is Pres.; H. K. Johnson, Ch. Engr., and George S. Taylor, Supt. of construction. This is a separate concern from the Interurban Company recently incorporated by H. Geneser Dufour and others.

Mo., Hannibal.—Wabash R. R. officers are reported saying it will build a line from Hannibal to Quincy, 18 mi., survey having been made. A. O. Cunningham, St. Louis, Mo., is Ch. Engr.

Mo., Hannibal.—A bill to enable the Missouri, Kansas & Texas Ry. to build a bridge over the Mississippi River at Hannibal, Mo., has been introduced in Congress by Representative Lloyd, according to a report from Washington. A. M. Acheson, Dallas, Tex., is Ch. Engr.

Mo., Kansas City.—T. M. Schumacher, Chmn. of the board Rock Island Lines, according to a report from Chicago, says that about \$10,000,000 will be spent next year for betterments. C. A. Morse, Chicago, is Ch. Engr.

N. C., North Wilkesboro.—An officer of the Watauga & Yadkin River R. R. is quoted saying that 8 mi. have been graded from Elkville Junction west to Darby and location made from Darby to Boone, N. C., 26 mi. Surveys in progress from Grandin to Lenoir, 16 mi.; also from Boone to Butler, Tenn., about 2½ mi. Present line operating North Wilkesboro to Grandin, N. C., 22 mi. W. J. Grandin, Lenoir, N. C., is Pres.

Okl., Edmond.—Location made for Oklahoma Ry. Co.'s extension from Edmond to Guthrie, Okla., 16 mi., through rough country and including 1800 lin. ft. of pile trestling. G. B. Treat, 213 Terminal Bldg., Oklahoma City, Okla., is Ch. Engr.

Okl., Poteau.—Fort Smith, Poteau &



Western Ry. It is reported, contemplates construction of an extension from Poteau to Midland, Ark., 16 mi. J. E. Finney, Witteville, Okla., is Gen. Mgr.

Okla., Sapulpa.—C. N. Haskell of Muskogee, Okla., former Governor, says a report, has proposed to Sapulpa Commercial Club to build two railroads, one to Henryetta and Muskogee, and the other to Cushing.

S. C., Bamberg.—The Bamberg, Ehrhardt & Walterboro Railroad, says a report, will shortly be completed as tracklaying is proceeding rapidly. It will be 14 mi. long and will connect with the Atlantic Coast Line at Ehrhardt, S. C.

S. C., Spartanburg.—Construction of an electric railway is contemplated from Spartanburg to Clinton, S. C., about 30 mi., via Walnut Grove, Nesbitts, Hobbyville, Cross Anchor and Musgrove Mill. Subscriptions amounting to \$100,000 and free rights of way are asked. W. B. Patton of Cross Anchor, S. C., and J. W. Copeland of Clinton, S. C., are among those interested.

Tenn., Shelbyville.—S. R. Kirkpatrick says that the Shelbyville, Petersburg & Decatur R. R. Co. plans to build an electric line from Shelbyville, Tenn., to Decatur and Athens, Ala., which is about 75 mi. Survey not yet completed. Officers not yet elected. Others interested are J. F. Boyd, H. H. Nelson, W. G. Evans and T. G. Cunningham, also of Shelbyville.

Tex., Beaumont.—The Jefferson County Traction Co. is reported to have practically completed the interurban electric railway from Beaumont to Port Arthur, 20 mi., and will begin its operation Dec. 15. E. J. Emerson is Gen. Mgr. at Beaumont.

Tex., Roaring Springs.—An officer of the Quanah, Acme & Pacific Ry. Co., says a report, announces that surveys are being made for an extension of 50 mi. from Roaring Springs toward El Paso, Tex. A. F. Sommer, Quanah, Tex., is Resident Engr.

Tex., Cleburne.—The Fort Worth Southern Traction Co., it is reported, will build an extension from Cleburne to Hillsboro, Tex., 25 mi., connecting with the Southern Traction Co.'s line to Waco. George H. Clifford, Fort Worth, Tex., is Gen. Mgr.

Tex., Denison.—John R. Cullinane of St. Louis is quoted saying that construction of the projected interurban railway from Denison, Tex., to Durant, Okla., has not been abandoned, but is only deferred on account of money market conditions.

Tex., Fort Worth.—The Fort Worth & Denton Interurban Co., capital \$500,000, is reported organized to build an electric railroad to connect Fort Worth and Denton, Tex., 35 mi. Application will be made for charter. Directors, E. E. Baldrige, Sam. Davidson, W. C. Stripling, B. J. Tillar, N. Harding, Geo. T. Reynolds, W. E. Connell, Marion Sansom, John P. King and Benj. O. Smith, all of Fort Worth; J. H. Paine, B. H. Davenport and J. R. Christal, all of Denton, Tex.

Tex., Freeport.—An officer of the Houston & Brazos Valley Ry. is quoted saying that work on the extension from Freeport to the sulphur mines at Bryan Heights, about 2½ mi., has been completed and the road is now being operated.

Tex., Llano.—Concerning the projected railroad from Lometa via Llano to Fredericksburg, Tex., D. J. Townley of Lometa says it is contemplated to secure a union of several railroad projects, including a narrow-gauge line from Lometa toward Llano, about 25 mi.; also a 15-mi. line building between Walnut Springs and Glen Rose to make a through line eventually to connect San Antonio and Fort Worth. The plan is still in embryo.

Tex., San Benito.—San Benito & Rio Grande Valley Railroad Co. has awarded contract to the Hidalgo Construction Co. of San Benito to build 21½ mi. of extension from Fernando to San Benito, Tex. It also proposes to build lines from Santa Maria to La Lomita, 29½ mi., and from Fernando to Alton, 49 mi. E. E. McLellan, San Benito, is Ch. Engr.

Tex., Smithland.—Black Bayou R. R., operating Myrtis, La., to Smithland, 16 mi., will, according to a report, build extension Smithland to Jefferson, Tex., connecting with Kansas City Southern. John Ryan of Staggs, Cal., is said to be interested.

W. Va., Morgantown.—Morgantown & Fairmont Ry. Co. has filed charter and will, it is announced, build an electric railway from Morgantown to Fairmont, 31 mi. Capital \$25,000. Location survey made. Incorporators, William H. Brank, Simon L. Wildman, former Gov. William E. Glasscock, S. Fuller Glasscock, John G. Samsel, John L. Hatfield, Edward G. Donley, R. E. Arnett and Harry E. Brookover.

W. Va., Petersburg.—The Middle States

Coal Co. it is reported is surveying preliminary to construction of a railroad from Petersburg to Bismarck, 20 mi.

W. Va., Petersburg.—Survey is reported in progress for what will be practically an extension of the Hampshire Southern R. R. from Petersburg to Franklin, W. Va.; Monterey, Va., and thence to Marlinton, W. Va., about 80 mi., connecting there with the Chesapeake & Ohio Ry. The Baltimore & Ohio R. R. is said to be behind the plan. F. L. Stuart, Baltimore, is Ch. Engr. for the Baltimore & Ohio.

W. Va., Sutton.—Gauley & Greenbrier R. R. Co. is chartered with \$50,000 capital to build line from near mouth of Cherry River to near Ronceverte, about 40 mi.; incorporators, W. E. Haymond, Fred L. Fox, Lee Raider, E. L. Bland and C. C. Hines, all of Sutton W. Va.

#### STREET RAILWAYS

Ala., Gadsden.—Loui Hart, Mgr. Gadsden, Bellevue & Lookout Mountain Ry., is quoted saying that it will immediately build an extension from 6th St. to Randall St.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

### "WANTS"

**Air Compressor.**—Board of Comms., Pensacola, Fla.—Bids until Dec. 29 on high-duty air compressor, with accessories, for water-works pumping station; C. W. Eggart, City Clerk.

**Air Compressor.**—Walter A. Zelnicker Supply Co., St. Louis, Mo.—Air compressor; capacity 1000 cu. ft. per min. at 200 to 300 lbs. air pressure; first-class condition.

**Belting.**—Electrical Utilities Exchange, 352 Bee Bldg., Omaha, Neb.—25-in. x 80-ft. double leather belt.

**Belting.**—P. H. Roberts, American Pickle & Canning Co., Wiggins, Miss.—Belting.

**Boiler.**—P. H. Roberts, American Pickle & Canning Co., Wiggins, Miss.—Boiler.

**Boiler.**—Tete-a-Tete Publishing Co., G. C. Bradford, Gen. Mgr., Tete-a-Tete Bldg., Washington, D. C.—Boiler for vacuum steam heating system.

**Boiler.**—American Metallic Packing Co., Walnut and Clark Sts., Lexington, Ky.—Used firebox type, 45 to 50 H. P. boiler; complete; first-class condition.

**Boilers.**—Bentonville Cooperage Co., W. C. Barnhardt, Prest., Bentonville, Ark.—Prices on boilers for factory at Joplin, Mo.

**Bottling Machinery.**—Adams-Wilson Co., W. B. Wilson, Gen. Mgr., Erin, Tenn. (after Jan. 1 Clarksville, Tenn.)—Bottle-soaking machine.

**Bricks.**—See Naval Supplies.

**Brick Machinery.**—W. G. Hall, Norlina, N. C.—Addresses of manufacturers of dry press brick machinery.

**Brick Presses.**—Marbleized Cement & Monumental Co., Frank Spencer, Mgr., Ave. C and 10th St., Miami, Fla.—Prices on brick presses.

**Bridge Construction.**—See Dam, etc.

**Bridge Construction.**—Jackson County Supvrs., Pascagoula, Miss.—Let contract Jan. 5 to construct 26 steel bridges in various parts of county.

**Bridge Construction.**—City of Batesville, Miss., J. B. Carothers, Clerk.—Bids until Jan. 7 to construct reinforced concrete bridge.

**Bridge Construction.**—Greenbrier County Court, John S. Crawford, Clerk, Lewisburg, W. Va.—Bids until Jan. 5 to construct reinforced concrete arch bridge over Meadow River, 1½ mi. from Rainelle, W. Va.; 150 lbs. to sq. ft. or concentrated load of 20-ton road roller; bids asked on 100 ft. clear span, 16 ft. roadway, wing walls with hand railing 3 ft. high and 20-ft. roadway at end of wing walls; also on two 50 ft. clear spans, measurements as in above.

**Bridge Construction.**—City, L. J. Monahan, Clerk, Jackson, Miss.—Bids until Dec. 18 to construct four 90-ft. reinforced concrete bridges over town creek on Pearl, Pascagoula, South and Rankin Sts.; proposal for each bridge sub-divided into following items: Item 1, bridge superstructure complete, lump sum; Item 1-a (alternate to item 1), bridge superstructure complete,

Fla., St. Petersburg.—Contracts reported closed for construction of an electric railway to Big Bayou and 4th St., South Acreage, by Feb. 1. Chas. R. Hall, 14 South St., south, St. Petersburg, Fla., may give information.

Md., Baltimore.—The United Railways & Electric Co. has been ordered by the Maryland Public Service Commission to extend its railway on the Belair Rd. from Overlea for about 7 mi. toward Jerusalem. W. A. House is Prest. of the railway company at Baltimore.

Tex., Dallas.—The Dallas Consolidated Street Ry. Co. proposes to build some double track on several streets, including Bryan, San Jacinto and Washington Sts. E. T. Moore is Mgr.

Tex., Port Arthur.—Port Arthur Traction Co., says a report, is preparing to extend its line on Practor St. C. F. Bruce is Supt.

Tex., San Antonio.—Bernard Corrigan of Kansas City, Mo., is reported planning to build a street railway to connect San Antonio and San Jose.

thread counter, silent chain drive with pulleys, 8 electric diamond nose tailors' irons, 3 miscellaneous motors, loose hand baling press, cutting shears, electric stove, 3-pole knife switch and 1 switch box, and cloth weights; schedule 6109, installation of folding and measuring machine, hydraulic presses, Singer sewing machines, hydraulic pump, galvanized iron storing racks, etc.; application for proposals should designate schedules desired by number; proposals furnished on application navy pay office, Charleston.

**Cooperage Machinery.**—Bentonville Cooperage Co., W. C. Barnhardt, Prest., Bentonville, Ark.—Prices on tight and slack cooperage machinery for factory at Joplin, Mo.

**Culvert Pipe.**—See Road Construction, Kosciusko, Miss.

**Crusher.**—Sterling Machinery Co., Hudson Terminal Bldg., 30 Church St., New York.—Farrell B 3x15 to 13x21 stone crusher; good condition.

**Cut-Offs (Automatic) for Bathtubs.**—W. E. Hughes, care Hughes Specialty Well Drilling Co., 96 Ashley Ave., Charleston, S. C.—Correspondence with manufacturers of device to cut off water supply, automatically, when bathtub is filled.

**Cutting Machinery.**—Hughes Specialty Well Drilling Co., 96 Ashley Ave., Charleston, S. C.—Stamping or rolling cutting machines for cutting segments of asbestos banding 3 in. wide, etc.

**Dam, etc.**—Lake Investment Co., F. D. Kendall, Chmn. of Com., Columbia, S. C.—Bids until Dec. 18 for furnishing all materials, labor and constructing spillway dam, flume, combined walkway and retaining wall for swimming pool and light steel bridge of 80-ft. span; plans and specifications at office of T. C. Hamby, Consult. Engr., Columbia.

**Dam Construction.**—Koon Creek Club, T. L. Powell, Secy., 529 Commonwealth National Bank Bldg., Dallas, Tex.—Bids until Dec. 20 to construct dam near Athens, Tex.

**Dredging.**—U. S. Engrs. Office, Charleston, S. C.—Bids until Dec. 31 for dredging in Winay Bay, S. C. Information on application. G. P. Howell, Major, Engrs.

**Drill Presses.**—Hughes Specialty Well Drilling Co., 96 Ashley Ave., Charleston, S. C.—Drill presses with gang of 2 drills for drilling small holes in cast iron.

**Electric Light Plant.**—A. L. Griffin & Son, Hardin, Ky.—Bids on electric-light plant.

**Electrical Machinery.**—Electrical Utilities Exchange, 352 Bee Bldg., Omaha, Neb.—1500 K. W., 2 or 3 phase, 60-cycle, 2300-volt, turbo-generator condenser outfit, steam at 160 lbs.; 3-phase, 60-cycle, 2200-volt A. C. motor of 70 to 100 H. P., or similar motor-generator set, generator to be 250 V. D. C.; 100 H. P., 2200-volt, 60-cycle, 2-phase, 450 R. P. M., A. C. motor; 3 single phase, 25-cycle, 500 K. W., oil-insulated, self-cooled transformers, 400 volts primary, 4000 volts secondary, or one 3-phase of 1200 to 1500 K. W., same characteristics.

**Electrical Machinery.**—Campbell Ware Co., A. B. Campbell, Prest., 26 Baldwin Bldg., Jacksonville, Fla.—Prices on individual motor-driven electrical equipment.

**Elevator Remodeling.**—Department of the Interior, Lewis C. Laylin, Asst. Secy., Washington, D. C.—Bids until Dec. 20 for remodeling elevators in Government Hospital.

**Engines.**—P. H. Roberts, American Pickle & Canning Co., Wiggins, Miss.—Engines.

**Elevators.**—P. H. Roberts, American Pickle & Canning Co., Wiggins, Miss.—Elevators.

**Filling, etc.**—Board of Bond Trustees, Frank Richardson, Chmn., Jacksonville, Fla.—Bids until Dec. 22 for filling in back of bulkhead and around new power plant at Talleyrand, and repairing present bulkhead; about 50,000 cu. yds. excavation; plans, specifications, etc., on application to L. D. Smoot, Ch. Engr., Engineering Bldg., Jacksonville.

**Fire Apparatus.**—W. E. Hughes, care Hughes Specialty Well Drilling Co., 96 Ashley Ave., Charleston, S. C.—Data and estimates on fire-fighting towers; also gang nozzles.

**Furniture.**—See Steel Filing Devices, etc., Atlanta, Ga.

**Glassware and Crockery.**—Louis Smith, 418 E. Grace St., Richmond, Va.—Data and prices on glassware and crockery for proposed wholesale business.

**Glove Machinery.**—See Overall Machinery, etc.

**Hardware, etc.**—Isthmian Canal Commission, P. C. Boggs, Major, General Purchasing Officer, Washington, D. C.—Proposals until Dec. 26 for shell tables for rifle and mortar batteries, wire cable, steel and iron pipe, pipe fittings, tire steel, poultry netting, rivets, bolts, screws, tacks, chain links, files, blacksmith's punches, wheelbarrows, machetes, pliers, monkey wrenches, tinner's shears, oilcloths, oars, paint brushes, file handles, water closets, lavatories, valves, manila rope, hose, packing, tarpaulins, leather, vitrified sewer pipe, magnesia pipe covering, beeswax, candles, rock salt, belt dressing, lard oil, paints, putty, rules, paper clips, rubber bands, level books, scratch pads, tag board and spud timbers. Blanks and information relating to circular (No. 812) obtainable from this office or offices of assistant purchasing agents, 21 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engineer offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile, Galveston, Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

**Ice Machinery.**—A. L. Griffin & Son, Hardin, Ky.—Bids on ice plant.

**Lead Smelters.**—G. E. Harrison, Prest., Canadian Marble Co., 508 First National Bank Bldg., Birmingham, Ala.—Addresses of lead smelters.

**Levee Construction.**—St. Francis Levee Board, O. N. Killough, Prest., Marion, Ark.—Bids until Dec. 22 to construct 1,000,000 cu. yds. levees; plans and specifications at office of B. G. Covington, Ch. Engr.

**Levee.**—Village Creek and White River Levee Dist., Geo. R. Hays, Secy., Newport, Ark.—Bids until Jan. 5 to construct about 15 mi. levee along White River.

**Lighting Fixtures.**—See Steel Filling Devices, etc., Atlanta, Ga.

**Locomotive.**—American Metallic Packing Co., Walnut and Clark Sts., Lexington, Ky.—Used standard-gauge, 32 to 35 tons, geared locomotive, first class condition.

**Locomotives.**—Box 770, Baltimore, Md.—Vulcan or Porter 6x10, 4-driver, saddle-tank locomotive, 36-in. gauge, for 140-lb. steam pressure.

**Lumber.**—See Naval Supplies.

**Manufactured Products.**—Edwin C. Loewenthal, 17 W. 94th St., New York.—Correspondence relative to representation on "Any line of merchandise that can be exported to Europe (especially Germany), and will stand competition."

**Metal Culverts.**—Louis Buckner, Jr., St. Joseph, La.—Addresses of manufacturers or dealers in smooth bore metal culverts, iron preferred. (Mr. Buckner lately incorrectly noted at St. Joseph, Mo.)

**Naval Supplies.**—Navy Department, Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., U. S. N., Washington, D. C.—Bids Dec. 30 to furnish 12,000 vitrified (dark red) paving bricks, schedule 6112; 5000 lbs. tarred felt roofing, schedule 6116; sanitary water still, schedule 6113; delivery Navy-yard, Norfolk, Va.; miscellaneous lot silent chains and silent chain gears and pinions, schedule 6119; miscellaneous lot steel springs, schedule 6115; delivery Navy-yard, Washington, D. C.; engine tractor, schedule 6116; delivery Gambrills, Md.; for schedules apply navy pay station nearest navy-yard.

**Naval Supplies.**—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-General, Washington, D. C.—Bids opened Dec. 23 to furnish long-leaf yellow pine, Sch. 6090, delivery navy-yard, Port Royal, S. C.; red gum, Sch. 6094, delivery navy-yard, Norfolk, Va.; portable platform scale, compound suspension scale and thermometers, Sch. 6085, delivery navy-yard, Annapolis.

**Nut Crackers.**—Western Nut Meat Co., Muskogee, Okla.—Nut-cracking machinery, more especially for pecans.

**Overall Machinery, etc.**—Jane Lew (W. Va.) Board of Trade, Geo. B. Waggoner, Secy.—Addresses of manufacturers of machinery for making overalls, canvas gloves and shirts.

**Paper Box Machinery.**—Wm. M. Bell, Box 394, Charlotte, N. C.—Data on manufacture of paper boxes, including cost of small plant and operating expense.

**Paving.**—City of Mexia, Tex., G. W. Perkins, Secy.—Bids until Jan. 1 on paving; \$80,000 available; H. S. Bennett, City Engr.

**Paving.**—J. B. Winslett, City Secy., Dallas, Tex.—Bids until Dec. 15 to pave portions of Main, Hall, Cochran, Lamar and

Laws Sts.; separate bids on following materials: Cressed pipe blocks, bitulithic, asphaltic concrete, Bermudez bituminous concrete, Uvalde rock asphalt, vibrolithic, concrete curbs, concrete gutters, combination concrete curb and gutter and storm sewer.

**Paving.**—City of Shreveport, La., L. H. Baker, Secy.—Bids until Dec. 9 to pave Wall St. from Marshall to Market St. with Dolarway pavement; plans and specifications at office of City Engr.

**Paving.**—F. C. Flewellen, City Secy., Belton, Tex.—Bids until Dec. 10 to pave portions of Main St., Central Ave., Ave. A, East and Penelope Sts.; bids received on following pavements: Vitrified brick with cement filler, vitrified brick with cement grout filler, granitoid concrete, asphaltic concrete, bitulithic, cressed pipe block pavement with sand and oil filler, concrete curbs and cement gutters; each to have 5-in. concrete foundation except granitoid concrete pavement; C. E. Leonard, City Engr.

**Paving.**—City of Hendersonville, N. C., Geo. W. Justice, City Business Mgr.—Bids until Dec. 18, at City Hall, for about 5000 cu. ft. dirt excavation in grading, 29,000 yds. paving, and 10,000 lin. ft. curbing; bids on bitulithic and asphalt concrete paving; specifications on application to Business Mgr.

**Pipe, etc.**—Sigmund Hess, Chmn., Committee Public Works, Board of Bond Trust-

Gravel Co., R. J. Riddle, Jr., Prest., 1037 First National Bank Bldg., Birmingham, Ala.—Prices on pumping outfit.

**Road Construction.**—W. B. Potts, Prest., Highway Comms., Supvs. Dist. No. 1, Attala County, Kosciusko, Miss.—Bids for entire work or separate divisions until Jan. 5 (changed date from Jan. 6) for about 17 mi. road improvement; Novaculite chert, gravel or crushed stone for finishing surface, roller compacted; alternate bids on sand-clay surfacing on parts; smaller bridges and large culverts probably concrete construction; bids asked on all kinds of culvert pipe; specifications, etc., at offices of Chancery Clerk, Kosciusko, Xavier A. Kramer, Engr., Magnolia, Miss., and Highway Com.

**Roofing.**—See Naval Supplies.

**Sawmill.**—West Bay Naval Stores & Lumber Co., St. Andrews, Fla.—Prices on second-hand sawmill; daily capacity 40,000 ft. lumber.

**Scales.**—See Naval Supplies.

**Sewers.**—City, S. W. Beville, Clerk, New Albany, Miss.—Bids Jan. 6 to furnish labor and materials and construct sewer system.

**Sewers, Screens, etc.**—Board of Awards, Baltimore, Md.—Bids at office of City Register, City Hall, until Dec. 17, to build hoisting screens, screenings press, etc., at Sewage Pumping Station, Sanitary Contract No. 112; includes 4-cage screens with

**Traction Engines.**—See Naval Supplies.

**Traction Engine.**—American Metallic Packing Co., Walnut and Clark Sts., Lexington, Ky.—Used steam tractor; 25 to 30 H. P., first-class condition and complete.

**Trucks.**—P. H. Roberts, American Pickle & Canning Co., Wiggins, Miss.—Trucks.

**Vault Doors.**—City of Yorktown, Tex.—Prices on vault doors. Address The Mayor.

**Vault Doors.**—R. L. Graveley, Florence, S. C.—Prices and catalogues on vault doors.

**Washing (Mining) Machinery.**—Riddle Sand & Gravel Co., R. J. Riddle, Jr., Prest., 1037 First National Bank Bldg., Birmingham, Ala.—Prices on washing plant.

**Water Wheel.**—D. E. Pace, Ashland, Ala.—Interested in small water machinery; wants data on "Buckey overshot wheel."

**Water-works.**—City of Winchester, Ill.—Bids until Jan. 6 (change of date) to construct water-works system; 9636 ft. 8-in., 320 ft. 6-in. and 2216 ft. 4-in. cast-iron pipe; 11,000 lbs. special castings; 280 ft. 2-in. galvanized iron pipe; 35 gate valves and boxes; 39 fire hydrants; 80,000-gal. steel tank on 110-ft. tower; 2 brick buildings; 2 50-gal. per min. motor-driven deep-well type pumps; 2 8-in. wells, 42 ft. deep; pump-house pipe work and connections; specifications, etc., at office of Guy Paul, City Clerk, and of engineers, Fuller-Coult Co., Chemical Bldg., St. Louis, Mo.

**Water-works.**—Board of Awards, Baltimore, Md.—Bids at office of City Register, City Hall, until Dec. 24 for construction of steel pipe or reinforced concrete pipe distribution mains, etc., between Lakes Montebello and Clifton; about 20,000 cu. yds. earth and 500 cu. yds. rock excavation; 5017 lin. ft. 108-in. and 3000 lin. ft. 84-in. steel or reinforced concrete pipe; 28 tons riveted steel pipe specials; 21 tons cast-iron pipe and fittings (39 in. and under); 6000 cu. yds. concrete; 16,000 lbs. reinforcing steel and steel shapes; 6000 lbs. steel castings; plans and specifications at office of Ezra B. Whitman, Water Engr., City Hall.

**Water-works and Sewers.**—City, Fred N. Tate, Mayor, High Point, N. C.—Bids until Dec. 22 (extended date) to furnish labor, materials, appliances and construct 3,000,000-gal. concrete clear water basin, fire-proof pump-house, concrete valve-house, install two 1000-gal. per min. electric-driven direct-connected centrifugal pumps, all necessary cast-iron piping, valves, special castings and connections, with electrical interior wiring and control devices; construct 1800 ft. 12-in. outfall sewer and sewage disposal plant.

**Well-Drilling Machinery.**—Wiconia Oil & Gas Co., A. R. Douglas, Secy., Salisbury, Md.—Information and prices on machinery for drilling oil or gas wells.

**Woodworking Machinery.**—Campbell-Ware Co., A. B. Campbell, Prest., 26 Baldwin Bldg., Jacksonville, Fla.—Prices on woodworking machinery.

**Woodworking Machinery.**—See Cooperative Machinery.

## FINANCIAL NEWS

### LOUISIANA BONDS SOLD.

\$10,567,470 Taken by Big Syndicate Upon a 4.70 Per Cent. Basis.

A New York and New Orleans syndicate has purchased the State of Louisiana 4½ per cent. serial refunding bonds to be issued to the amount of approximately \$10,567,470, at a price of 96.142. The members of the syndicate include Harris, Forbes & Co., Potter, Choate & Prentice and Brown Bros. of New York, and the Hibernia Bank & Trust Co. and the Whitney Trust and Savings Bank of New Orleans. Alex. Brown & Sons of Baltimore are likewise interested. These bonds are to refund a State loan of the above amount which matures January 1, 1914, and they will mature serially from August 1, 1915, to 1964. Their average maturity will be about 35 years.

The bids received for the bonds, according to a report from New York, where bankers have had them under consideration for several weeks, showed that many of the large bond houses were ready to

[For Additional Financial News, See Pages 72 and 73.]

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

### We issue every Business Day in the Year THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

The Daily Bulletin is an exceptionally desirable advertising medium.

The subscription price is \$25.00 a year. Are you a subscriber to it, or an advertiser in it? If not, you are missing an opportunity for profitable business.

tees, Jacksonville, Fla.—Bids until Dec. 22 on following estimated amounts of materials to be delivered from time to time during ensuing year: 1800 cu. yds. stone; 1800 cu. yds. slag; Sch. A—600 ft. 12-in., 4000 ft. 15-in., 2000 ft. 18-in., 2000 ft. 21-in., 900 ft. 24-in., 350 ft. 27-in., 1600 ft. 30-in., 800 ft. 33-in., 1100 ft. 36-in., 350 ft. 39-in., 1300 ft. 42-in., 120 ft. 48-in., 850 ft. 54-in., 250 ft. 57-in., 300 ft. 60-in. and 300 ft. 63-in. galvanized corrugated iron pipe; Sch. B—100 ft. 12-in., 3000 ft. 15-in., 850 ft. 18-in. and 550 ft. 21-in. galvanized corrugated iron pipe; separate bids on pipe, as per schedules. For specifications, etc., apply to E. L. Carroll, Supt., Sewer Dept., Engineering Bldg.

**Printing Press.**—Taylor Art Printing Co., Henry Taylor, Secy., St. Petersburg, Fla.—Rapid rotary printing press, capacity to print orange and grapefruit wrappers cheaply.

**Pump.**—Tete-a-Tete Publishing Co., G. C. Bradford, Gen. Mgr., Tete-a-Tete Bldg., Washington, D. C.—Power electric pump.

**Pumps.**—P. H. Roberts, American Pickle & Canning Co., Wiggins, Miss.—Pumps.

**Pumping Plant.**—Muscatine and Louisa County Supvs., acting for Muscatine-Louisa Drainage Dist. No. 13, Muscatine, Iowa.—Bids for steam-driven drainage pumping plant complete, containing 3 centrifugal pumps, 2 to have capacity of 85,000 gals. per minute each, and 133,000 per minute capacity against maximum static pumping head of 16 ft.; information on application to Harman Engineering Co., Engr., Peoria, Ill.; company wires that date (Dec. 30) of opening bids has been postponed.

**Pumping Machinery.**—Riddle Sand &

electric hoists; piping and connections; about 5 tons structural steel; electric wiring, lighting fixtures, etc.; also for lateral sewers and house connections in Dist. 42, contract 124; about 23,400 lin. ft. 8 to 12-in. sewers and 12,500 lin. ft. house connections; plans on file at office of Calvin W. Hendrick, Ch. Engr., Sewerage Com., 904 American Bldg., where plans, etc., are obtainable after Dec. 5 for contract No. 112, and after Dec. 6 for contract No. 121.

**Sewers.**—See Water-works, N. C., High Point.

**Sewers.**—E. B. Bonney, City Secy., Houston, Tex.—Bids until Dec. 13 to construct outlet to Austin St. sewer; plans and specifications at office of E. E. Sands, City Engr.

**Steel Filing Cases, etc.**—Fulton County Comms., Atlanta, Ga.—Bids until Jan. 20 (new date) for steel filing devices and equipment, wood furniture, courtroom benches and lighting fixtures with lamps for installation in Fulton county courthouse; 3 separate contracts; specifications, etc., at office of Architects, A. Ten Eyck Brown and Morgan & Dillon, 607 Forsyth Bldg., Atlanta, and on file, office of Comms.

**Stone and Slag.**—See Pipe, etc., Jacksonville, Fla.

**Stone-Working Machinery.**—Marbleized Cement & Monumental Co., Frank Spencer, Mgr., Ave. C and 10th St., Miami, Fla.—Prices on granite polishers, stone cutters' pneumatic tools, hand tools, stone planers and stone saws.

**Structural Steel.**—Mayben & Fruechtel, Gadsden, Ala.—Prices on 85 tons of structural steel for \$61,900 store building at Mobile, Ala.



**Merchants-Mechanics National Bank**

South and Water Sts. BALTIMORE MD.  
DOUGLAS H. THOMAS President  
JNO. B. RAMSAY V.-P. and Chm. Bd. of Dir.  
W.M. INGLE Vice-President  
JOHN D. H. DUNN Cashier  
Capital \$2,000,000 Deposits \$21,670,000  
Surplus and Profits \$2,175,000  
Accounts of Banks Bankers Corporations and Individuals solicited  
We invite correspondence.

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DEALT IN  
**F. J. LISMAN & CO.**  
Specialists in Steam R. R. Securities  
Members New York Stock Exchange  
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Land Title & Trust Bldg. Philadelphia

**The First National Bank**

OF KEY WEST, FLA.  
United States Depository and Disbursing Agent  
Capital - - - \$100,000  
Surplus and Undivided Profits - - 40,000  
A general banking business transacted  
Special attention given to collections

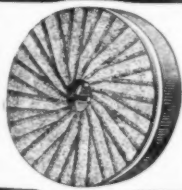
**Delaware Trust Company**

Wilmington, Delaware  
INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.  
BANKING AND TRUST department gives special attention to out of town customers' accounts.  
TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.  
REALTY DEPARTMENT has sites for manufacturing industries. Modern Methods of management of property.  
J. ERNEST SMITH, President and Gen. Counsel.  
WM. G. TAYLOR, Vice-Pres. and Treasurer.  
HARRY W. DAVIS, Vice-Pres. and Secretary.  
W. W. PUSEY 2d, Title and Real Estate Officer.

**LIMESTONE FLOUR**

Ground to Paving Specifications. Roofing Gravel  
Sized Crushed Stone for all purposes.  
**THE G. C. BUQUO LIME CO.**  
HOT SPRINGS, N. C.

**HAVE YOU TRIED**  
**WALL'S** Everlasting Steel  
TORCHES and OILERS  
They are Guaranteed. Write  
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Equipped with ESOPUS STONES  
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**B. F. STARR CO.** Baltimore, Md.

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BULLETIN No. 3-R  
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**To Manufacturers and Capitalists**

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Attention is called to the exceptionally favorable location of

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OLD DOMINION LAND COMPANY  
NEWPORT NEWS, VA.

H. B. Wilcox, Pres. Blanchard Randall, V.-Pres.  
Wm. S. Hammond, Cashier  
Saml. W. Techudi, A. Cash. R. E. Bolling, A. Cash.

**The First National Bank**

17 South St., Baltimore, Md.  
Capital - - - \$1,000,000  
Surplus and Net Profits - - 400,000  
Deposits - - - 6,500,000  
Especially well equipped to handle the business of Southern Banks, Corporations, and Individuals and Manufacturers. We cordially invite correspondence and interviews.

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OF BALTIMORE, MD.  
Hopkins Place, German and Liberty Streets  
Capital, \$1,000,000  
August 9th, 1913, Surplus and Profits, \$764,091.00  
OFFICERS  
WALDO NEWCOMER, President.  
SUMMERFIELD BALDWIN, Vice-Pres.  
R. VINTON LANSDALE, Cashier.  
C. G. MORGAN, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

**FIRST NATIONAL BANK**

RICHMOND, VIRGINIA  
Capital and Surplus - - - \$3,000,000  
JNO. B. PURCELL, President  
JNO. M. MILLER, Jr., Vice-Pres.  
W. M. ADDISON, Cashier.  
W. M. HABLSTON, Chairman of Board

Edwin Warfield, President

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Largest and Strongest Surety and Casualty Company in the World

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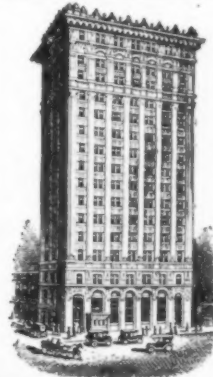
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**Mercantile Trust & Deposit Company OF BALTIMORE**

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purchase either long serial bonds or two-year temporary bonds, a price near par being offered for the latter if they were to be issued, but the State of Louisiana chose to close the matter definitely at this time by selling serial bonds.

It is further stated that the law firm of Caldwell, Messlich & Reed, under whose supervision the recent constitutional amendment was adopted in Louisiana authorizing the refunding of the maturing debt by the sale of serial bonds maturing in from 1 to 51 years, providing a mandatory tax each year to meet the interest thereon and the maturing principal thereof, has approved the legality of the issue, and it is remarked that the sale of these bonds on a 4.70 basis represents a material improvement in the Louisiana debt situation, as it was at one time feared that the State would have to sell 5 per cent. bonds.

Harris, Forbes & Co. telegraph the MANUFACTURERS RECORD that the State of Louisiana has reserved the right to call the bonds at 104 and interest, beginning with the longest maturities; also, under a ruling of the Attorney-General of New York, the bonds are eligible for savings banks and trust fund investments in New York State.

Governor Hall, who is chairman of the Board of State Debt Liquidation, and the other members thereof are to be congratulated upon the success of this loan, especially as it was sold at a time when money is commanding liberal interest everywhere. It is also highly encouraging to other Southern States which may be contemplating the sale of securities, as it shows that they may be marketed at a satisfactory price notwithstanding opposition and criticism, which in the case of the Louisiana loan was not inconsiderable.

### American Bank Reporter.

The American Bank Reporter, corrected and revised to September, 1913, is issued. This publication is of especial value to all interested along financial lines, as it comprises important data, such as alphabetical list of all banks in United States and Canada, including National, State, savings and private institutions, names of officers, correspondents in large cities, as well as charter number of each National bank, capital, loans, etc., besides principal loan, trust and investment companies, etc. It also contains list of reliable attorneys in United States and Canada, alphabetical list of all bank officers, foreign banks and bankers, directors of banks in principal cities, synopsis of banking and commercial laws of various States and Canada, bank statements, statistics, etc. Towns without banking facilities, with nearest banking point, are also given. The book, published by Steiner Publishing Co., 5-7 Beekman street, New York, is bound in blue cloth, with silver lettering, has thumb index, maps of all States and Territories, including Canada, etc. In addition to the American Bank Reporter, which is in its seventy-seventh year (issued in March and September, with bi-monthly supplements), a convenient desk edition is published in June and December.

### FINANCIAL CORPORATIONS

Ala., Mobile.—Mavis Investment Co., capital \$10,000, is inceptd. by Arthur Shirley Benn and Alice Marie Benn, London, England, and W. Plummer Burgett of Mobile.

Ala., Peterman.—Bank of Peterman, capital \$15,000, has begun business; J. K. Kyser, Pres.; D. R. Nettles, V.-P., and T. S. Jackson, Cash.

Ark., Pollard.—Chartered: Bank of Pollard; capital \$10,000; J. P. Hiller, Pres.; H. W. Moore, V.-P., and R. H. Dudley, Secy.-Treas.

Fla., Arcadia.—Commercial State Bank will begin business about Jan. 1 with following directors: D. W. Stevenson, Pres.; Walter Graham, 1st V.-P.; C. H. Kreigh, 2d V.-P.; E. W. Stevenson, Cash.; J. Henry Johnson, E. D. Treadwell and C. E. Gibson.

Ga., Macon.—Rutherford Trust Co. has made application for charter; capital \$50,000; petitioners, Herbert F. Haley, C. W. Leonard and Malcolm D. Jones.

Ga., Savannah.—Mutual Building and Loan Asso. has filed petition for incorporation; incorporators, W. A. Sturtevant, E. G. McDonald, W. J. Robider, C. C. Cambridge, Paul Conida and C. J. Richards.

La., Franklinton.—Washington Bank & Trust Co. chartered; capital \$50,000. Directors: J. B. Lindsay, Pres.; F. M. Brown, V.-P.; D. H. McCreary, Lynn H. Dinkins. Business is to begin Jan. 12.

La., Lake Charles.—American Mutual Life Insurance Co. chartered; surplus \$200,000; W. H. Stark, Pres.; Orange; A. L. Watkins, active V.-P.; S. A. Arthur Knapp, Treas., and Leon Locks, Secy., Lake Charles. Business is to begin about Jan. 1.

Md., Hagerstown.—Hagerstown Securities Co. organized by H. J. Lipper, Baltimore, and S. A. Roth, Hagerstown.

Miss., Jackson.—State National Bank chartered and inceptd. with \$100,000 capital and \$20,000 surplus, has begun business. T. B. Gaddis, Pres.; L. M. Gaddis, V.-P.; J. M. Jolley, Cash.; W. N. Cheney, Asst. Cash.

Mo., Doniphan.—Ripley County Abstract & Title Co. chartered; capital \$6000; incorporators, George D. Sloan, Charles H. Martin and D. B. Young.

N. C., Durham.—Judge R. H. Sykes, Durham; T. J. Anderson and Fairfax C. Christian of Virginia are reported organizing a "Morris Plan" bank.

S. C., Andrews.—Andrews Building and Loan Asso. chartered; capital \$100,000; W. H. Andrews, Pres.; H. W. Fraser, V.-P., and D. L. Moyd, Secy. and Treas.

S. C., Owings.—Bank of Owings organized; capital \$25,000; petitioners, George W. Owings, W. S. Power and R. M. Bryson.

Tenn., Camden.—People's Bank & Trust Co., capital \$20,000, is being organized by Judge L. E. Davis, M. B. Fry, J. J. Weatherly, J. M. Lockhart and M. A. Pettyjohn.

Tenn., Darden.—Bank of Darden chartered; capital \$12,500; will begin business about Jan. 1; organizers, S. G. Parker, W. O. Hill, F. J. Bray, W. A. Smith, Darden; H. P. Webb, Milan, Tenn. L. B. Moore will be Pres.; Rev. Boren, V.-P.; Asa Davis, Cash.



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Ask for a free demonstration of a Burroughs in your office. No cost or obligation.

**Burroughs Adding Machine Co.**  
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Va., Kinsale.—Citizens' Bank inceptd.; capital \$10,000 to \$25,000; will begin business about Jan. 1; directors, H. W. B. Williams, Pres.; W. C. Snow, V.-P.; Robert Bailey, J. M. Jeffreys, T. H. Halling, J. W. Delastations, H. C. Hardwick, Geo. Mason and W. H. Sanford. C. E. Thomas is Cash.

Va., Portsmouth.—Industrial Loan Corporation chartered; capital \$15,000 to \$30,000. C. R. Welton, Pres.; A. B. Jarvis, Secy.-Treas.

Va., Roanoke.—Chartered: Savings and Loan Corporation; capital \$10,000; C. D. Fox, Pres.; J. T. Bandy, Secy.

W. Va., Albright.—First National Bank will begin business in January; capital \$25,000; Dr. E. E. Watson, Pres.; W. C. Albright, V.-P.; Herbert H. White, Cash.

### NEW SECURITIES

Ala., Clanton.—Dec. 22 city will vote on \$25,000 5 per cent. 30-year water-works bonds; denominations \$50, \$100 and \$500; E. A. Matthews, Mayor.

Ala., Luverne.—Steiner Bros., Birmingham, have purchased \$75,000 5 per cent. 40-year Crenshaw county road and bridge bonds. F. M. T. Tankersley, clerk.

Ark., Paragould.—It will be 30 or 60 days before Lighthouse Drainage Dist. No. 1, Greene county, will issue bonds. Address Dist. Commrs. (See Manufacturers Record, Nov. 27.)

Fla., Bradentown.—Voted: \$95,000 street, sewer, water-works and drain sewer bonds; Geo. B. Wallace, Mayor.

Fla., Bradentown.—Jan. 12 Manatee county will vote on \$425,000 of road and bridge bonds. Address County Commrs.

Fla., Daytona.—Question of issuing \$175,000 sewerage and rainage bonds reported under consideration. Address The Mayor.

Fla., Fort Meade.—Bids will be received until noon Dec. 17 by W. E. Arthur, Secy. Board of Bond Trustees, for \$19,000 5 per cent. 30-year water-works bonds; dated July 1, 1912. Further particulars will be found in advertising columns.

Fla., Manatee.—City Council has under consideration question of holding election to vote on \$100,000 street, sewerage and water-works bonds. Address The Mayor.

Fla., Miami.—Miami School Dist., Orange county, proposes to issue \$100,000 bonds. R. E. Hall is County Supt., School Board.

Fla., Miami.—City is considering submitting to vote \$400,000 of bonds as 5 per cent. 50-year bonds as follows: Streets, \$60,000; sewers, \$90,000; sanitation, \$25,000; fire, \$30,000; hospital, \$10,000; parks and docks, \$155,000. Address The Mayor.

Fla., Passagrille.—Voted: \$3000 water-works, \$2500 electric light, \$1000 street crossing, \$3500 seawall and \$1000 street and alley improvement 6 per cent. 30-year bonds. James Henry, Town Clerk.

Fla., Port St. Joe.—Voted: \$10,000 municipal improvement bonds. T. Howard, Mayor.

Fla., Sarasota.—Hanchett Bond Co., Chicago, has purchased at par \$15,000 6 per cent. funding bonds. Address The Mayor.

Fla., St. Petersburg.—Weil-Roth & Co., Cincinnati, O., have purchased at \$178.73 premium \$227,950 6 per cent. 30-year improvement bonds. W. F. Divine, City Clerk.

Fla., Tarpon Springs.—Election to vote on \$35,000 street, \$15,000 water-works, \$15,000 sewer, \$12,000 city hall and jail and \$3000 fire-fighting equipment bonds was postponed from Nov. 19 until some time in Jan. H. B. Webster is Mayor.

Ga., Commerce.—T. C. Hardman, Chrmn. Finance Committee, is receiving bids for \$8000 school and \$8000 sidewalk 5 per cent. 30-year bonds.

Ga., Midville.—Bids received until Dec. 29 for \$22,000 6 per cent. water-works, sewer and street-improvement bonds. Denomination \$1000. Dated Nov. 1, 1913; maturity Nov. 1, 1928, 1943. E. W. Brooks, Town Clerk.

Ky., Louisville.—Recently \$1,000,000 4½ per cent. 40-year school bonds were voted, the validity of which is now in the courts and will probably be settled about January 1. After the validity of this issue is established bonds will not be available before April 1, 1914. Henry B. Manly, Secy. Board of Education, Louisville.

Ky., Ludlow, R. F. D., Sparta.—Voted: \$20,000 school bonds. Address The Mayor.

Ky., Mt. Olivet.—C. Perry and Samuel Throckmorton, agents, Robertson County Fiscal Court, will receive bids until 1 P. M. Jan. 1 for \$9000 5 per cent. county refunding bonds.

La., Baton Rouge.—Syndicate composed of Harris, Forbes & Co., Potter, Choate & Prentice, New York; Hibernia Bank & Trust Co. and Whitney Central Trust & Savings Bank of New Orleans has been awarded Louisiana State serial refunding bonds in an amount to retire \$10,557,670 bonds maturing Jan. 1, 1914, at 96.142. L. E. Hall, Gov. and Chrmn. Board of Liquidation, State Dept. of Louisiana.

La., Hammond.—Election is to be held to vote on \$90,000 of bonds as follows: High-school building, \$50,000; water-works extension, \$16,000; sewerage, \$16,000; town hall and fire-fighting apparatus, \$8000. Address The Mayor.

La., Shreveport.—City has for sale \$101,500 4½ per cent. municipal improvement bonds; denomination \$500. L. H. Baker, Secy.-Treas.

Miss., Collins.—Powell Separate School District, Covington county, has issued \$15,000 school bonds. Address Board of Supervisors, Covington county.

Miss., Decatur.—Newton county is to vote on \$100,000 road-improvement bonds. Address County Commrs.

Miss., Indianola.—Ulen & Co., Chicago, were awarded at 101.074 for 6s the \$50,000 10-25-year Sunflower county road and bridge bonds; A. P. Stubblefield, County Clerk.

Miss., Leakesville.—John Nuvreen & Co., Chicago, have purchased \$10,000 of Greene county road bonds. Address Board of Supervisors.

Miss., New Albany.—Bids will be received until 7.30 P. M. Jan. 6 for \$35,000 6 per cent. 20-year water-works, sewer, street and jail bonds; denomination \$500. S. W. Bevil, City Clerk. Further particulars will be found in advertising columns.

Miss., Poplarville.—Pearl River County Industrial Consolidated School Dist. proposes to issue \$5000 6 per cent. 10-year school bonds. Address County Commrs.

Miss., Taylor, P. O. Oxford.—C. E. Slough, attorney, will receive bids at any time for \$2500 6 per cent. Taylor separate school district bonds.

Miss., Tunica.—Board of Supervisors, Tunica county, will in January issue \$20,000 agricultural high-school bonds.

Mo., Joplin.—Defeated: \$280,000 4½ per cent. 10-20-year school bonds. D. K. Wenrich, Secy and Clerk, Board of Education.

Mo., Jefferson City.—Voted: \$100,000 high-school bonds. Address The Mayor.

Mo., Marshall.—Dec. 18 city will again vote on \$70,000 municipal electric-light-plant bonds. Address The Mayor.

Mo., New Madrid.—Voted: Courthouse and jail bonds. Address The Mayor.

N. C., Charlotte.—Board of Commrs., Mocklenberg county, announce that the sale of \$75,000 jail and \$25,000 bridge 4½ per cent. 10-20-year bonds to A. P. Leach & Co., New York, at slightly above par is complete.

N. C., Clinton.—Bids will be received until noon Dec. 15 for \$100,000 5 per cent. 40-year Sampson county road bonds; denomination \$500. Address J. R. Peterson, Chrm. Board of County Commrs.

N. C., Goldsboro.—E. D. Pusey, Secy. School Board, will receive bids until noon Dec. 18 for \$10,000 20-year school building and \$40,000 of an issue of \$100,000 30-year road 5 per cent. bonds, Wayne county.

N. C., Granite Falls.—Lovely township

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RUBBER STAMPS  
SEAL PRESSES  
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**Peabody, Houghteling & Co.**  
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CHICAGO, ILLINOIS



Caldwell county, has voted \$25,000 5 per cent. 40-year road-improvement bonds. Chrmn. County Commrs., Lenoir county, will offer the bonds. D. M. Cline is president Township Good Roads Association.

N. C., Henderson.—City is reported to have sold bonds for erection of high-school building. Address The Mayor.

N. C., Macon.—Board County Commrs., P. M. Stallings, Chrmn., will receive bids until 4 P. M. Jan. 10 for \$30,000 40-year Warrenton township, Warren county, road bonds. Denomination \$100 to \$1000. Further particulars will be found in advertising columns.

N. C., Nashville.—Red Oak, Nash county, has voted \$10,000 bonds for farm life school and building dormitories. W. S. Wilkinson, Chrmn. Board of Education.

N. C., Newbern.—Board of Aldermen has instructed City Clerk to ask bids for \$20,000 school bonds.

N. C., Rocky Mount.—Cutter, May & Co., Chicago, purchased last October \$35,000 5 per cent. 40-year building bonds Rocky Mount Graded School Dist. Address Dist. Commrs.

N. C., Wilson.—Baker, Watts & Co., Baltimore, have been awarded \$160,000 5 per cent. 30-year municipal light and power plant and street bonds of Wilson. Address The Mayor.

N. C., Whitesville.—Bids will be received until 2 P. M. Jan. 12 for \$100,000 5 per cent. 30-year Columbus county courthouse bonds. Address Board of County Commrs., C. C. Pridgen, Chrmn. Further particulars will be found in advertising columns.

N. C., Washington.—Beaufort county has sold to Bolger, Mosser & Willaman, Chicago, at \$38.86 the \$50,000 5 per cent. 30-year bridge bonds; denomination \$1000; Gilbert Rumley, clerk Board Commrs.

N. C., Winston-Salem.—City is considering question of issuing bonds to cover \$350,000 debt. Address The Mayor.

N. C., Newton.—Two local banks have purchased \$25,000 Newton township, Catawba county, road bonds, at par less \$1000 for commission and attorney fees. Address County Commrs.

Okla., Atoka.—Bids will be opened Dec. 23 for \$35,000 6 per cent. 25-year sewer, city hall and fire-station bonds; denomination \$100. Address P. P. Williamson, City Clerk.

Okla., Atoka.—Bids received until 8 P. M. Dec. 22 for \$30,000 sewerage and \$5000 city hall 6 per cent. 25-year bonds. P. P. Williamson, City Clerk. Further particulars will be found in advertising columns.

Okla., Collinsville.—City has for sale \$11,000 of bonds for park purposes; T. J. Rowland, Mayor.

Okla., Elk City.—Attorney-General has approved \$10,000 water-works bonds recently voted. Address The Mayor.

S. C., Orangeburg.—Bids will be received until noon Jan. 6 for \$60,000 5 per cent. 20-40-year water and light bonds. Address L. H. Wannamaker, City Clerk and Treasurer; R. P. Bryant, Mayor. Further particulars will be found in advertising columns.

Tenn., Blountville.—An election will probably be called in January to vote on \$19,000 Sullivan county road bonds. Address County Commrs.

Tenn., Clarksville.—Bids received 11 A. M. Dec. 18 for \$100,000 Montgomery county 5 per cent. 30-year road bonds recently voted. S. W. Kelly, County Clerk.

Tenn., Cleveland.—Bradley county is offering for sale \$25,000 of an issue of \$100,000 pike bonds. F. H. Johnston is Supt. pike roads.

Tenn., Erwin.—City is reported considering question of issuing water-works bonds. Regarding this N. T. Tudor, Mayor, writes: "No bond issue expected soon."

Tenn., Jackson.—Jan. 29 election will be held to vote on \$115,000 bonds to build city hall and pay off floating indebtedness.

Tenn., Lonsdale, P. O. Knoxville.—Voted: \$18,000 bonds for retiring outstanding indebtedness. Dr. H. E. Christenberry, Mayor.

Tenn., Mountain City.—Johnson County Good Roads Assn. has adopted resolution asking the issuing of \$150,000 of highway bonds. Address County Commrs.

Tenn., Sevierville.—All bids received Dec. 1 for \$135,000 5 per cent. 20-year Sevier county road bonds rejected; H. D. Bailey, Chrmn. County Commrs.

Tex., Alice.—Bids received until 9 P. M. Dec. 15 for \$125,000 5½ per cent. 10-40-year Jim Wells county road bonds; denomination \$1000; dated Nov. 17, 1913. W. R. Perkins, County Judge.

Tex., Alpine.—Dec. 20 Brewster county will vote on \$80,000 road bonds. Address County Commrs.

Tex., Atlanta.—Road Precinct No. 7, Cass

county, is offering for sale \$30,625 5 per cent. 10-40-year bonds, being part of an issue of \$35,000. The other \$4375 were purchased by Cass County School Fund. Address W. T. Floyd.

Tex., Austin.—Attorney-General has approved following securities: \$3000 Dist. No. 6, \$1000 Dist. No. 11, 5 per cent. 20-year Carson county school bonds.

Tex., Belton.—Road Dist. No. 2, Bell county, is reported to have voted \$50,000 bonds. Address County Commrs.

Tex., Corpus Christi.—Bishop Drainage Dist., Nueces county, proposes to issue \$100,000 bonds. Address County Commrs.

Tex., El Paso.—Jan. 7 city and El Paso county will vote on \$300,000 of bonds to erect joint municipal building. C. E. Kelly is Mayor.

Tex., Fort Worth.—Election will probably be called to vote on \$100,000 water-works refunding and \$50,000 water extension and improvement bonds. Address Mayor Milam.

Tex., Fort Worth.—City Comm. has considered issue of \$150,000 of bonds to cancel water-works department debt and make improvements.

Tex., Greenville.—Hunt county is reported considering question of issuing \$200,000 road-improvement bonds. Address County Commissioners.

Tex., Lamarque.—Voted: \$8000 school district building bonds. Address Dist. Commrs.

Tex., Marshall.—Voted: \$7000 park bonds. Address The Mayor.

Tex., McKinney.—The \$75,000 street-improvement and \$75,000 school bonds recently voted are 20-40-year 5 per cents. Address The Mayor.

Tex., Memphis.—Voted: Bonds for school building to cost \$25,000. Address The Mayor.

Tex., Midland.—The \$50,000 5 per cent. 5-40-year Midland county bonds recently reported sold were purchased by John B. Oldham, Dallas.

Tex., Nocona.—Question of issuing \$17,500 water-works bonds reported under consideration. J. L. Biter, Mayor.

Tex., Paint Rock.—Defeated: Concho county jail bonds. James E. Houze, County Judge.

Tex., Palo Pinto.—Voted: \$50,000 Strawn Dist., Palo Pinto county, road bonds. Address County Commrs.

Tex., Pecos.—Petition is to be presented to Commrs., Reeves county, for an election to be held in east half of county, including Commrs. precincts Nos. 1 and 4, to vote on \$100,000 road bonds.

Tex., Runge.—Bids will be received by J. F. Murray, City Secy., or G. Tips, Mayor, until 7 P. M. Dec. 15 for \$20,000 5 per cent. water-works and electric-light bonds; denominations \$50; dated Jan. 1, 1914; maturity Jan. 1, 1954. Further particulars will be found in advertising columns.

Tex., Sulphur Springs.—City proposes to hold election to vote on bonds for paving public square. Address City Commission.

Tex., Sabine Pass.—Voted: \$35,000 Sabine Pass independent school district bonds. Address District Commrs.

Tex., Uvalde.—Voted: \$35,000 sewerage and \$20,000 street-improvement bonds. Address The Mayor.

Tex., Yoakum.—City contemplates issuing \$100,000 various improvement bonds. Address The Mayor.

Tex., Willis.—City is offering for sale \$7000 5½ per cent. 20-year water-works bonds; denomination \$50. Dated Oct. 8, 1913. Address S. A. McCall, Commr.

Va., Alexandria.—Board of Supvrs. Fairfax county has decided to place on the market immediately \$50,000 of the \$90,000 5 per cent. Mount Vernon Dist., Fairfax county, road bonds.

Va., King George.—Rappahannock Dist., King George county, will vote on \$10,000 road-improvement bonds. Address County Commrs.

## FINANCIAL NOTES

State Bankers' Association of Oklahoma will hold its first annual meeting in Oklahoma City Dec. 9.

Rocky Mount Insurance & Realty Co., Rocky Mount, N. C., has decided to increase capital from \$50,000 to \$100,000.

Traders' National Bank, Birmingham, Ala., has increased capital \$150,000, making capital and surplus over \$300,000, and resources \$2,000,000.

Atlantic Permanent Building & Loan Assn., Inc., Norfolk, Va., proposes to amend charter and increase capital from \$2,500,000 to \$5,000,000; W. B. Dougherty, Secy.

## Markets in Samoa.

Pago Pago, American Samoa, Nov. 18.  
*Editor Manufacturers Record:*

The natives of American Samoa are quite enterprising, and have started two co-operative stores under the supervision of the Governor of American Samoa. I manage and do the buying for the companies. One of the companies—the Manua Co-operative Co.—has been in existence for over eight years, and has a present worth of about \$10,000. The company is run on the principle of giving the natives first-class service at a fair cost. Surplus funds are given to the natives for village improvements, etc. The natives of the Manua group own a 70-ton 125-horsepower gasoline motor-schooner. This schooner trades among the various islands within a radius of 200 miles of Pago Pago. In 1912 the schooner made a net profit of 30 per cent. She represents an outlay of approximately \$23,000 cash at present, and, if properly handled, will pay 40 per cent. net yearly. The Leone Co-operative Co. is an infant concern of some two months' life. My duties as a classified civil employe of the Navy Department give me but little time to devote to the upbuilding of these concerns, but I devote that little time in trying to secure American goods which will compete with the foreign goods on the market. I have had fair success this year, and can see the possibilities of American goods being placed throughout the South Seas in much larger quantities than at present. If I could devote my entire time to advertising and introducing American goods I feel sure that along several lines we would be winners in Fiji, Tonga, German Samoa and American Samoa, not to mention the new and daily growing larger fields of New Caledonia, New Hebrides, Solomons and New Guinea. I will mention American products that should be introduced without delay and those which have already been introduced, with the amount of success attained.

Roofing Materials—I think that roofing material, such as the asbestos roofing advertised by several American firms, will find a ready and large sale throughout the South Seas if properly introduced. In fact, I believe that one company, the Kensey-Mattison Company of Ambler, Pa., have an article in their asbestos roofing that will take the market by storm if they can land it here and sell it from 10 to 14 cents per foot. We have samples of the above-mentioned roofing, and although we cannot estimate the landed cost, one native chief has insisted on ordering corrugated asbestos roofing for his house regardless of cost.

Cutlery—The natives use large quantities of cutlery, principally steel goods. Disston machetes are already on the market and have a large sale. Metal table cutlery, saws, etc., have a great demand.

Dry Goods—This is the field in which most of the surplus cash of the Islands goes in dress. Nothing is too good for the Samoans. I am certain that the German firm in Apia, German Samoa, sells dress pieces at \$50 per piece. Anything from the worst to the best, and their taste is growing better each year. I have already sent samples of trade material to Minot, Hooper & Co. of New York city. Will be pleased to send samples of German goods holding the market here to American firms upon application.

Biscuits (Pilot Bread)—The Standard Biscuit Co. of San Francisco entered the market about two and one-half years ago and has secured more than their share of the trade. Previous to this the trade was almost entirely in the hands of Australian and New Zealand firms.

Meats—Entirely in the hands of the colonials.

Shoes—I would like to assume the agency for an American shoe company in American Samoa and Apia under the condition that I could sell shoes at not over 50 cents per pair more than their retail price in the United States. An arrangement as above mentioned would do all the trade of these Islands. From \$1 to \$2 per could be added to home cost in Fiji, Solomons and farther west.

Flour—Growing larger yearly, but a slight difference must be made in price to compete with Australia—about \$4 per ton. Other provisions—Large sales for all sorts of foodstuffs, most of which comes from Australia and New Zealand.

I believe that the American industries have been overlooking these islands, and that there is a very profitable trade open to those who care to investigate. The exports of German Samoa were \$1,200,000 in 1912, and imports \$132,000 less. I am not in possession of the Fijian figures, but they total much more than German Samoa. German Samoa imported less than \$100,000 direct from the United States. Copra and cocoa are the principal exports of German Samoa, and sugar and copra of Fiji. Pago Pago could be used to advantage as a depot for Tonga, German Samoa, the Tokolauas, Ellice Group, Home and Wallis Islands and the Cook Islands.

F. R. WILSON.

## For a Packing Plant.

Commercial Club,

San Benito, Tex., December 3.

*Editor Manufacturers Record:*

There is an opportunity here for a practical butcher with a little money, or who can control a limited amount of capital, to establish a packing plant on a small basis, at first, and gradually work into a splendid business.

The supply of fresh meats for all the towns of the Lower Rio Grande Valley is generally furnished locally, there being no packing-house within hundreds of miles of this point.

The supply of hogs would be sufficient to keep a small establishment busy, and with a local market available this supply would naturally be rapidly increased.

The Commercial Club will be glad to co-operate with any responsible party who would be interested in such a proposition.

GEO. A. TOOLAN, Secretary.

## Improvements of Lakeland.

Board of Trade,

Lakeland, Fla., December 2.

*Editor Manufacturers Record:*

Building and other improvements completed during the present year or now under way in this city have an aggregate value of \$1,794,000. They include more than 300 houses, costing from \$1000 to \$12,000 each and aggregating \$900,000; street paving, \$900,000; hotel, \$125,000; Atlantic Coast Line Railroad, yard tracks, freight depot, transfer sheds and shop improvements, \$200,000; ice plant, \$100,000; sewerage, \$80,000; city hall, \$18,000; Evening Telegram building, \$16,000, and apartments, warehouses, business buildings, etc., ranging in cost from \$20,000 to \$35,000.

A. J. HOLWORTHY, Secretary.

## Arkansas Power Co.

The Arkansas Power Co., Little Rock, has been incorporated to construct hydro-electric plants at Arkadelphia, Malvern and other locations in Arkansas. It is capitalized at \$500,000, and its officers are: President, H. C. Couch; vice-president, J. H. Meek; secretary, J. L. Longino; treasurer, J. W. Lee; all of Little Rock.

# Classified Opportunities

## MEN WANTED

WANTED—A bright, ambitious, well-educated man with natural tendency for salesmanship. Splendid opening with real estate company in a progressive Southern city. Address Box 395, Wilmington, N. C.

WANTED—Stove salesman for the territory of Virginia and North Carolina; prefer man who would take small amount of stock; must come well recommended. State salary wanted. Address Altemarle Stove & Machine Co., Charlottesville, Va.

WANTED—Dealers and agents in the South to handle the Blystone concrete mixer. A mixer which meets the growing demand for a thorough and dependable machine that can be bought at a price which the small contractor can afford to pay. A great seller backed up by wide advertising. Address Blystone Machinery Company, Box 89, Cambridge Springs, Pa.

WANTED—Experienced man who understands the manufacture of hosiery to take charge of a small knitting mill. Address Jacob Spiro, Knoxville, Tenn.

AGENTS WANTED among supply dealers and salesmen for an exceptional house-lighting machine, suitable for small homes as well as large; simple, durable, economical; satisfaction guaranteed to customers; has excellent selling points; a live proposition. Write for terms. The Alexander N. Milburn Co., Baltimore, Md.

WANTED—Man thoroughly competent to take charge of a tight-barrel dried-heading business, located in the Southwest; one who has had experience in timber supply and purchase, and heading manufacture, and is competent to assume management. No attention will be given to replies that do not state fully age, record of experience, names of references, salary expected, and if married or single. Address No. 1428, care Manufacturers Record, Balto., Md.

WANTED—At once, a man of ability and experience to handle a furniture manufacturing plant turning out a line of kitchen tables and safes, situated in a middle Georgia town of 6000 inhabitants; excellent climate; good schools and churches. The applicant must be strictly sober and have ability to handle the manufacturing and sales end of a \$75,000 corporation. The owners are willing to give the right man entire charge of the plant, pay a moderate salary, and commission on the net profits. The applicant must be able to invest not less than \$7500 in said plant. The right man can clear not less than \$5000 to \$7000 per annum as his part. If interested, advise the undersigned at once. Callaway & Day, P. O. Box 215, Milledgeville, Ga.

## AGENCIES WANTED

Mfrs. of hardware and household specialties wanting representation in N. Y. City and vicinity. Have sample room and office. Connections, Atlanta, Jacksonville. Small salary and com. L. O. Dana, 107 Chambers St., N. Y. City.

WANTED—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

EXPERIENCED BUSINESS MAN OF BERLIN, long successful career, desires, during short stay here, find connection with first-class concerns as representative purchases or sales in Germany, Austria. First-class references New York and Berlin available. Please address "S. M." Postoffice Box 822, New York City.

STATE AGENCY WANTED for floor tiling, lime, wall plastering, Portland cement, roofing paper, composition shingles and mortar colors. We contemplate handling building supplies in connection with the manufacture and sale of common brick, face brick and fire brick. Address No. 1115, care Manufacturers Record, Balto., Md.

WANTED—Commission sales agency for South for contractors' supplies, paving material, also building supplies. No conflicting lines will be handled. Highest references for honesty and business ability. Address No. 1413, care Manufacturers Record, Balto., Md.

## SITUATIONS WANTED

GRADUATE C. E., 1905, wants position with eng. contractor or manfr.; experience with U. S. Govt. R. R. constr. industrial plants. Address No. 1418, care Manufacturers Record, Balto., Md.

WANTED—By competent electric construction estimator and superintendent, with 16 years' experience in all classes electric and mechanical-electrical work, steady position with engineering and contracting firm. Address P. B. Carpenter, care of R. W. Knight & Co., Birmingham, Ala.

AMERICAN, now employed, 30 years old, married, chemical engineer, graduate of Southern technical school; recently returned from three years' residence in South America, wishes to connect himself with export department of manufacturing concern or commission house; has had experience with house exporting machinery and has called on customers in this country and in South America; speaks and writes Spanish. Rio Piedras, 719 Empire Bldg., Atlanta, Ga.

## RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c per line. 300 lines 16c per line. 500 lines or more 15c per line.

## EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical, Electrical and Chemical Engineering and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), and Bachelor of Science (B.S.). Also special courses. Splendidly equipped new engineering laboratories. Send for catalogue to Registrar.

## CAPITAL WANTED

A GOING CONCERN, owning its plant and doing a manufacturing, general machine shop, foundry and contract business, best location in South Atlantic States, fine prospects, plenty of work not easily affected by outside conditions, wants \$20,000 active working capital; terms to be arranged. Don't write unless genuinely interested and have the money. Address No. 1289, care Manufacturers Record.

\$4000 TO \$6000 DESIRED for a special enterprise in your city if over 100,000 population. All local capital and full local control. Address No. 1426, care Manufacturers Record, Balto., Md.

WANTED—Party with capital to finance me in clearing and planting in grapefruit and oranges 1000 acres in Florida. I am young and need only financial aid to carry out my plans. Would arrange for personal interview with capable party. Address R. Snelson, P. O. Box 126, Bostwick, Ga.

## PARTNER WANTED

PARTNER WANTED.—I have 1-story and basement factory covering 12,000 sq. ft. (can extend), on 3 railroad spurs; 12 railroads; water rates; unlimited natural gas 6c. per 1000 or less; petroleum, iron, sulphur, salt, chalk, gypsum and lignite mines near; will put it into acceptable manufacturing business with partner equal capital who understands his business. J. J. Green, 1623 Texas Ave., Shreveport, La.

## BUSINESS OPPORTUNITIES

WANTED—Working partner with some capital in established manufacturing (woodworking) business in Eastern N. C. No. 1424, care Manufacturers Record, Balto., Md.

SPLENDID OPPORTUNITY FOR A CANNERY AT CARTHAGE, N. C.; local capital will aid and building will be furnished free. It will be to your advantage to write to J. R. McConnell, Industrial Agent, Randolph & Cumberland R. R., Carthage, N. C.

GO SOUTH. An unusual chance. Well established ice-cream and confectionery business. Population 20,000, and still growing. Only ice-cream factory in the city. A chance of a lifetime. Address P. O. Box 705, New Bern, N. C.

FOR SALE—One of the best-paying suburban drug stores in the State; small expense, clean profits; fine opportunity for young man. Cash. Write Box 194, Raleigh, N. C.

PORTLAND CEMENT OPPORTUNITY.—Corporation, not financed, holds in fee simple an ideal property of 250 acres, perfect material, handled by gravity; inexhaustible; 2 railroads; bought electric current reduces cost of power and investment one-fourth; cement going up; demand far exceeds supply in South; Panama Canal will increase it threefold; prices protected by high freight rate from the East; present plants not up to date but coining money; a 1000-barrel-per-day plant will easily yield net profit of 75c. per barrel; great industrial opportunity for capital; can transfer all outstanding stock for \$25,000 cash; property worth by any standard \$100,000; refer to W. B. Ruggles, Pres. Ruggles-Coles Engineering Co., 59 Church St., New York; not interested, but knows property and proposition. W. W. Wadsworth, 318 Peters Bldg., Atlanta, Ga.

FOR SALE—Handsome 12-room home; cost \$8000, and rents for \$40 per month. Also brick storehouse; cost \$24,000, and rents for \$150 per month. Address T. P. Moses, Box 625, Norfolk, Va.

GOLD IN GEORGIA.—Investigate the greatest discovery ever made in the South. Address Ga. Gold Mining Company, Tallapoosa, Ga.

THE OPPORTUNITY OF A LIFETIME for a man of means and experience in banking who is willing to invest from \$50,000 to \$100,000 with his services in an established banking business with nearly half million dollars of resources and located in the best business center of the South. Address P. O. Box 179, Richmond, Va.

FOR SALE—The controlling interest and management of a strictly high-grade corporation, operating exclusively in city property, best city in Florida. A money-making investment to a party having \$30,000 cash to invest. Address No. 1415, care Manufacturers Record, Balto., Md.

EXPERIENCED brass manufacturer with some money can secure part or entire interest in established brass-manufacturing plant. Address P. O. Box No. 22, Houston, Texas.

FOR SALE—Foundry and machine shop with large woodworking plant attached, equipped with new and up-to-date machinery, running on full time, making school desks, opera chairs and caskets; good reputation and increasing trade on both; will sell all or half interest; splendid opportunity for right man. Don't write unless you mean business and have some money to invest. References given and required. Address Owner, Box 484, Columbus, Georgia.

A CLIENT of ours has a site suitable for a small warehouse or manufacturing business. He will erect a building for a good tenant. The location is a convenient ship ping point in this city. The Central Realty Co., Inc., 1006 Hull Street, Richmond, Va.

## SOUTHERN HOME

FOR SALE—Or exchange for farm. Have lost my health. My physician advises I must go to the country. In order to do this will be forced to sell or exchange my 11-room home in Oxford, Miss., the best town in North Mississippi. All modern conveniences, three-acre lot, large barn, other outbuildings. Four blocks public square. Full particulars and price given anyone interested. Name what you have and value. Address J. H. Lawshee, Oxford, Miss.

## HOTEL FOR SALE OR RENT

FOR SALE OR RENT.—A centrally located hotel at Richmond, Virginia; 60 rooms, with all modern conveniences. Splendid location for one experienced in the business. For sale to settle up an estate. Chapin & Hume, Box 335, Richmond, Va.

## MODELS

MODELS MADE FOR INVENTORS.—General machine work. Designing and perfecting. Developing automatic devices and machinery. In a position to do all kinds of light tool and machine work. Prices reasonable. Estimates cheerfully given. Ideal Machine Works, 64 Ann Street, New York City.

## R. R. TERMINAL AND FACTORY SITES

DESIRABLE MANUFACTURING SITE NEAR ATLANTA FOR SALE.—Large acreage, on Southern Ry. Also large tract in Birmingham suitable for railroad terminal or manufacturing. Coffield Investment Co., Atlanta, Ga.

## MANUFACTURING SPACE

ABOUT 10,000 SQUARE FEET, ground floor, modern fireproof factory building, bordering Payson and Eagle Sts.; suitable for heavy manufacturing; power, light and heat furnished. Apply to C. D. Van Vorst, care Phoenix Pad Mfg. Co., Wilkens Ave. and Monroe St., Baltimore, Md.

## FACTORY BUILDING FOR RENT

FOR RENT.—Owing to the consolidation of our manufacturing business at Greenville, S. C., we offer for lease all or a portion of the buildings which we recently occupied at Dilworth. Main building heavy mill construction, 75'x200', equipped with modern heating, lighting and sprinkler equipment. Also frame warehouse building approximately 20'x40'. Main building has sidetrack facilities on Southern Ry. Property is very desirable for manufacturing or storage purposes. Address American Mach. & Mfg. Co., Charlotte, N. C.

## FACTORY SITES

FOR SALE.—As a whole or in part, 42 acres smooth and level land, lying between and adjoining two railroads in the suburbs of Hagerstown, Md. Splendid facilities and special inducements for manufacturing purposes. Address Bower & Bower, First National Bank Bldg., Hagerstown, Md.

## INDUSTRIES WANTED

### CLAY WORKING PLANTS

FREE LOCATION for brick, hollow ware or tile roofing plant, with 29 years free material; on main line R. R. between Birmingham and Atlanta, Ga.; an abundance of water; material has been thoroughly tested and proves good. For further particulars address Ingram Realty Co., Empire Bldg., Birmingham, Ala.

### MISCELLANEOUS

HENRIETTA, TEX., offers unlimited supply natural gas 5c. to manufacturers; fire brick, tile shales; water; low taxes; healthful; 3 railroads; unusual opportunity legitimate enterprises. Address Booster Club.

INDUSTRIES WANTED.—We offer cheap labor, unlimited electric power, plenty raw material, and best climate in the world. For full particulars write Roland G. Spearman, Secy., Talladega, Ala.

BLUEFIELD, WEST VIRGINIA, the gateway to the vast Pocahontas coal fields, and the distributing point for half a million contented laborers, needs an overall factory, needs a mine implement factory, and needs a brick plant. Address C. T. Boykin, Secretary Bluefield Chamber of Commerce.

## INDUSTRIAL PLANTS FOR SALE

### FOUNDRY

FOR SALE.—The best-equipped foundry between Richmond, Va., and Atlanta, Ga. The owner, after 29 years in same business, wishes to retire. For particulars address No. 1455, care Manufacturers Record, Balto., Md.

### PLANING MILL

PLANING MILL FOR SALE in town of 20,000, on two trunk railroads; fast-growing country; plenty of business; plant can be bought at bargain; half cash; balance monthly payments; new and complete; not too large. Cotton Belt Bank, Pine Bluff, Ark.

### COTTONSEED OIL MILL

OIL MILL FOR SALE.—A complete 30-ton cottonseed-oil mill for sale, in good condition, ready for operation. No seed here on account of boll-weevil. A bargain for someone. Address Wootton Brothers, Barlow, Miss.

### BRICK PLANTS

BRICK PLANT FOR SALE.—Sixty acres of best clay land, opposite Augusta, Ga., with half mile of river frontage, available for river transportation, also railroad track through property into plant.

All necessary machinery, including two Boss kilns of 50,000 capacity each, also four Dutch kilns of medium size, and one standard brick dryer of 7,000 capacity.

Plant has all needed houses and has a capacity of 60,000 brick per day. For further information write Goodwin & Duvall, Augusta, Ga.

### CRUSHER STONE PLANT

FOR SALE AT A BARGAIN.—A broken stone property, located on Southern R. R., equipped with modern crushers, boilers, engines, storage bins, sidings, and in shape to commence operations at once. Must be sold by Jan. 1. A. F. Messick, Winston-Salem, N. C.

### ICE PLANT

FOR SALE.—One second-hand Hercules five-ton ice plant, complete, including Corliss engine, without steam boilers; can make six tons ice each 24 hours. There are 130 200-lb. freezing cans; very low figure for quick sale. W. E. Shannahan, Secretary the Easton Ice Company of Talbot County, at Easton, Md.

### FELT PLANT

FOR SALE.—Well-equipped felt plant in good location wants a quick purchaser. Address No. 1421, care Manufacturers Record, Balto., Md.



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